

206L
407

Canadian
STC



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Aero Design Ltd.
2013 39th Avenue North East
Calgary, Alberta
Canada T2E 6R7

Number: SH00-48

Issue No.: 9

Approval Date: December 08, 2000

Issue Date: November 30, 2011

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

BELL 206L, 206L-1, 206L-3, 206L-4, 407

Canadian Type Certificate or Equivalent:

BELL 206L, 206L-1, 206L-3, 206L-4, 407 H-92

Description of Type Design Change:

Installation of Cargo Basket / External Attachment
Provisions/Auxiliary step/Quick Release Step

**Installation/Operating Data,
Required Equipment and Limitations:**

Installation: See Continuation Sheets

Operation: See Continuation Sheets

Maintenance: See Continuation Sheets

Certification Basis: See Continuation Sheets


...See Continuation Sheets Pages 2,3,4



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.

F.J.B. Wright
For Minister of Transport

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
60602	External Attachment Provisions Installation	0
FMS700.91	Flight Manual Supplement	0
ICA700.90	Instructions for Continued Airworthiness	0
FABRICATION DOCUMENTS		
60620	Block Fabrication	1
60621	Forward Fitting	1
60622	Barrel Nut Fabrication	0
60624	Barrel Nut Fabrication	0
ENGINEERING DOCUMENTS		
ER606.01	Engineering Report	0
ER606.02	Engineering Report	0
ER493.01	Engineering Report	0
<div> <div> APPROVAL:  <div> Transport Canada </div> </div> <div> Transport Canada </div> </div> <div> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>D. S. Clouston</u> Appr'l No. <u>SH00-48</u> Appr'l Date <u>00-12-08</u> Issue No. <u>6</u> Issue Date <u>08-01-30</u> YY-MM-DD </div>		

ORIGINAL DATE:
10 May, 2006

REVISION DATE:
28 September, 2007

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SHEET 1 OF 1

**External Attachment
Provisions Installation**
DCL700

Rev.

1

BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT
for the
**INSTALLATION of EXTERNAL ATTACHMENT
PROVISIONS**

Supplemental Type Certificate No. SH00-48

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with External Attachment Provisions. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



Revision 0
4 May, 2006

JUN 09 2006
TRANSPORT CANADA APPROVED

I LIMITATIONS

1. Attachment of any equipment to the External Attachment Provisions requires Transport Canada Approval.

II NORMAL PROCEDURES

1. No change from basic Approved Flight Manual.

III EMERGENCY PROCEDURES

1. No change from basic Approved Flight Manual.

IV PERFORMANCE

1. No change from basic Approved Flight Manual.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 700.90

EXTERNAL ATTACHMENT PROVISIONS

Bell 407

Preface

These Instructions for Continued Airworthiness shall be included in the Bell 407 Maintenance Manual when the External Attachment Provisions are installed in accordance with AERO Design Ltd. Document Control List DCL700, Revision 0, or later approved revision.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 0
Date: 20 April, 2006

AERO Design Ltd.
Engineering Consultants

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RECORD OF REVISIONS

Revision Number	Issue Date	Date Inserted	By
0			Original Issue

LIST OF EFFECTIVE PAGES

List of Revisions Revision 0 (Original Issue) 20 April, 2006

List of Effective Pages

<u>Description</u>	<u>Pages</u>	<u>Revision No.</u>
Cover	1	0
Revision Record/List of Effective Pages	2	0
Table of Contents	3	0
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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for the Bell 407 embodying the External Attachment Provisions as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the External Attachment Provisions. Requests for a copy may be made in writing to:

AERO Design Ltd.
2013 39th Avenue N.E.
Calgary, Alberta
T2E 6R7
Fax: 403-250-8333
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

0-5 GENERAL DESCRIPTION

External Attachment Provisions are installed to allow the installation of various equipment, such as cargo baskets. On the Bell 407, the forward fittings are replaced, and a block is installed in the aft fittings with the attachment provisions. The new fittings and blocks incorporate a barrel nut for installing equipment.

The External Attachment Provisions are installed on the Bell 407 helicopter in accordance with Installation Drawing 60602. The forward fittings are bolted to the lower fuselage and landing gear with the same fasteners as used for the original fittings, as shown in Figure 1. In the rear, a block is installed in the cavity on the front side of the existing aft fittings, as shown in Figure 2.

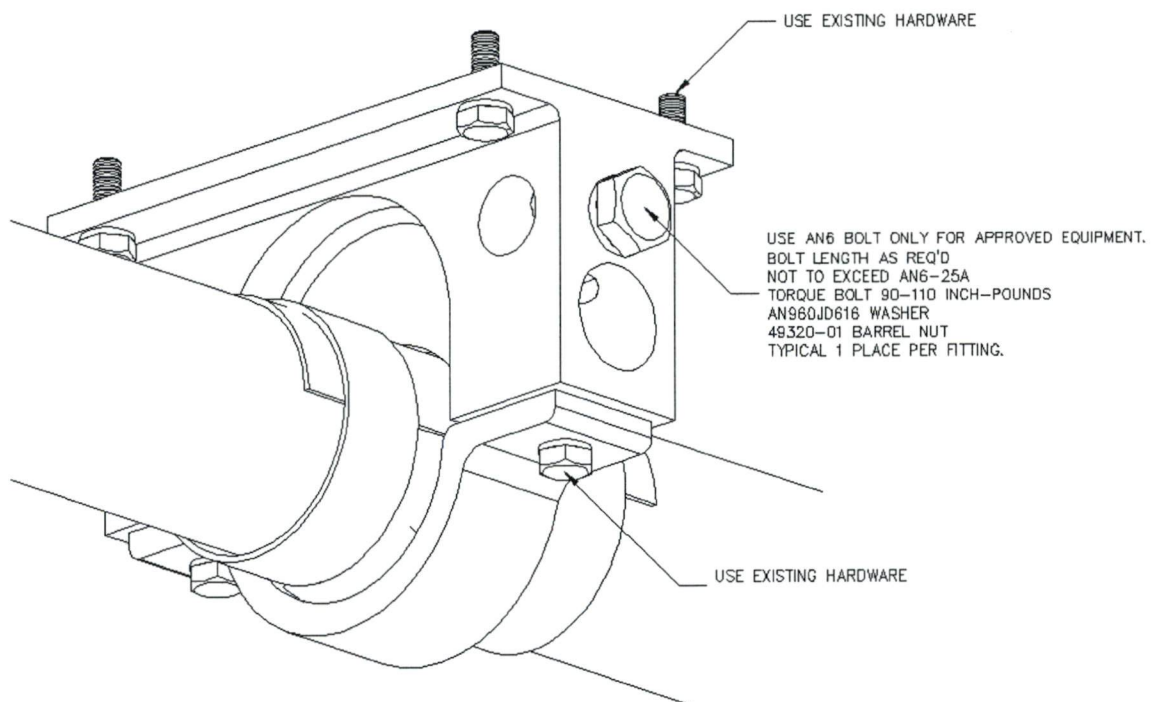


Figure 1 - Installation of Forward External Attachment Provisions

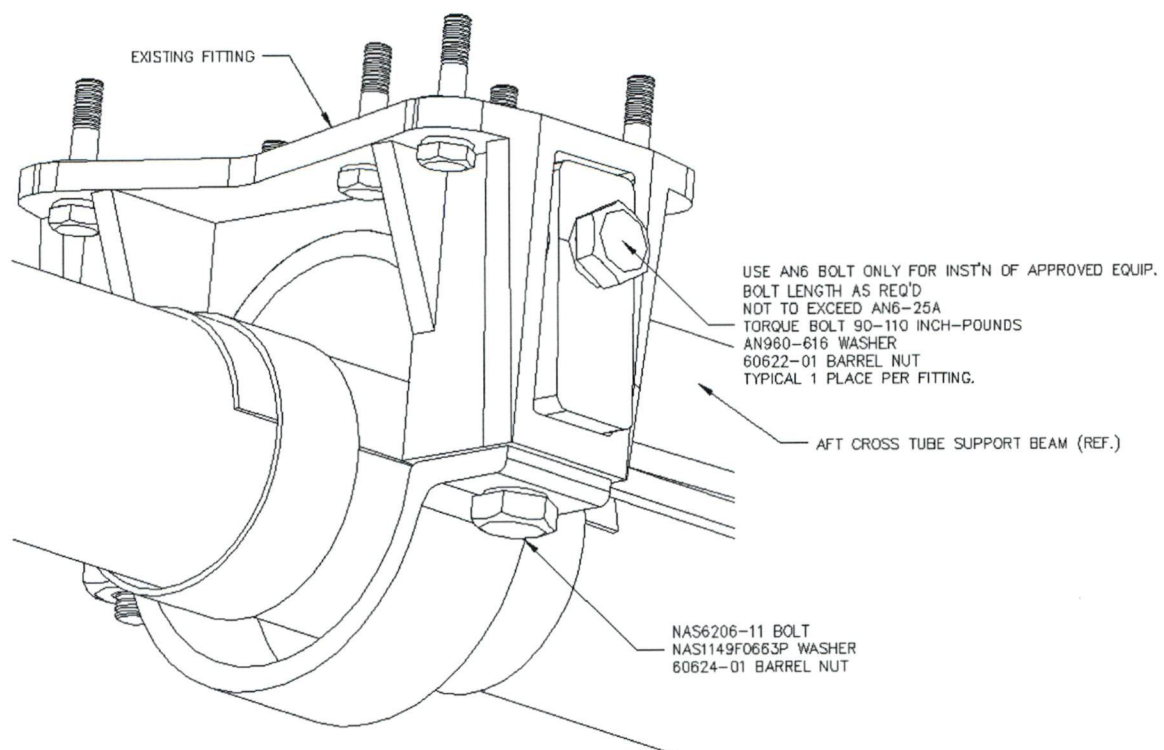


Figure 2 - Installation of Rear External Attachment Provisions

CHAPTER 4 – AIRWORTHINESS LIMITATIONS

The Airworthiness Limitations section is Transport Canada-approved and specifies maintenance required under Section 571 of the Canadian Aviation Regulations, unless an alternative program has been approved.

No additional airworthiness limitations have been imposed due the installation of the External Attachment Provisions.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the Bell 407 Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of the External Attachment Provisions.

300 Hour or Annual Inspection

1. Inspection Area: Landing Gear Attachment Fittings
 - a) Visually inspect landing gear fittings and blocks in situ for cracks, corrosion or other damage.
 - b) Visually inspect hardware attaching fittings and hardware attaching cross-tubes to fitting in situ for security and damage.

Special Inspections

Following a hard landing inspect the External Attachment Provisions installation in accordance with the 300 hour or annual inspection listed above.

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Landing Gear Attachment Fittings

DO NOT REPAIR DAMAGE TO FITTINGS IF BEYOND THE LIMITS BELOW.

 - a) Nicks and/or gouges on any face up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour. Touch up paint as required.
 - b) Do not repair elongation of provision bolt slot (AN6 bolt). Slot is nominally 0.391" (25/64") in diameter with 1/4" maximum freedom of motion left and right.
 - c) Do not repair elongation of barrel nut hole. Hole is nominally 3/4" in diameter.

5-3 PROTECTIVE TREATMENT INFORMATION

The External Attachment Provisions are to be Alodined, primed with epoxy primer, and painted with polyurethane paint.

CHAPTER 11 – MARKINGS AND PLACARDS

The following markings are used with the External Attachment Provisions Installation in the locations noted:

- | | |
|---------------------------------------|----------|
| a) Located on top of forward fitting: | 60621-01 |
| b) Located on back of block: | 60620-01 |

CHAPTER 32 – LANDING GEAR

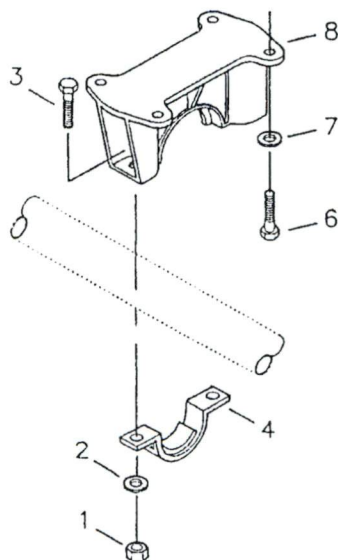
Refer to drawing 60602. Refer to Illustrated Parts Book for alternate part numbers to those that may be listed. Refer to Maintenance Manual for further information regarding installation and removal of landing gear attachments.

Raise helicopter using a jack or hoist rated at 5000 lbs or more when changing fittings. Raise helicopter until landing gear is at least 4" off the ground.

32-1 FORWARD LANDING GEAR FITTINGS INSTALLATION

Refer to Figure 4

1. Locate right hand forward Landing Gear Fitting (8) on bottom of helicopter and install with four Bolt (6) and Washer (7). Repeat for left side.
2. Raise front landing gear cross tube into position on the landing gear fittings.
3. Position Strap Assembly (4) under cross tube on landing gear fitting. Install two Bolt (3), Washer (2), and Nut (1).



Item	Part	Bell 407
1	Nut	MS21042L5
2	Washer	NAS1149F0563P
3	Bolt	NAS6205-11
4	Strap Assembly	206-052-105-035

6	Bolt	NAS6604-7
7	Washer	140-007-16A17B4
8	Fitting (Original)	407-030-111-101
8	Fitting (New)	60621-01

Figure 4 – Forward Landing Gear Fitting

32-2 FORWARD LANDING GEAR FITTINGS REMOVAL

Refer to Figure 4

1. Remove any equipment installed on the External Attachment Provisions.
2. Remove two Bolt (3), Washer (2), Nut (1) from ends of Strap Assembly (4) and remove Strap Assembly from right hand forward Landing Gear Fitting (8). Repeat for left hand side.
3. Lower front landing gear cross tube to the ground.
4. Remove four Bolt (6) and Washer (7) from right hand forward Landing Gear Fitting (8) and remove fitting. Repeat for left hand side.

32-3 AFT LANDING GEAR BLOCKS INSTALLATION

Refer to figure 2.

1. Remove NAS6206-7 Bolt, NAS1149F0663P Washer, and MS21042L6 Nut.
2. Insert 60624-01 Barrel Nut in 60620-01 Block. Locate Block in forward side of right hand aft landing gear fitting.
3. Install NAS6206-11 Bolt, NAS1149F0663P Washer.
4. Repeat for left hand side.

32-4 AFT LANDING GEAR BLOCKS REMOVAL

Refer to Figure 2

1. Remove any equipment installed on the External Attachment Provisions.
2. On right hand aft landing gear fitting, remove NAS6206-11 Bolt, and NAS1149F0663P Washer and remove 60620-01 Block.
3. Install NAS6206-7 Bolt, NAS1149F0663P Washer, and MS21042L6 Nut to secure strap.
4. Repeat for left hand side.


32-5 WEIGHT AND BALANCE

Part #	Name	Weight (lbs)	Longitudinal		Lateral	
			Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
60621-01	Forward Fitting (Pair)	2.68	73.0	195.6	0	0.0
60620-01	Block (Pair)	0.5	152.7	76.4	0	0.0
Total		3.18	85.5	272.0	0	0.0

32-6 STRUCTURAL FASTENER DATA

Refer to Bell Standard Practices Manual BHT-ALL-SPM for torque values not listed in this ICA.

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
49301	External Attachment Provisions Installation	2
FMS493.01	Flight Manual Supplement	0
ICA493.90	Instructions for Continued Airworthiness	0
FABRICATION DOCUMENTS		
49311	Forward Fitting	3
49312	Aft Fitting	4
49320	Barrel Nut	1
ENGINEERING DOCUMENTS		
ER493.01	Engineering Report	0
ER493.03	Test Report	0
261.02	Honeycomb Insert Load Test Report	0
<div> <div> APPROVAL:  </div> <div> ORIGINAL DATE: 19 May, 2002 REVISION DATE: 10 May, 2006 </div> <div> AERO DESIGN LTD. 2013 - 39th Avenue NE Calgary, Alberta T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div> </div>		
SHEET 1 OF 1		BELL 206L SERIES External Attachment Provisions
DCL493		Rev. 6

BELL 206L SERIES

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT
for the
**INSTALLATION of EXTERNAL ATTACHMENT
PROVISIONS**

Supplemental Type Certificate No. SH00-48, Issue 2

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 206L Series when fitted with External Attachment Provisions. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

	Transport Canada	Transports Canada
AIRCRAFT CERTIFICATION DIVISION		
APPROVED		
By <u>D. S. Austin</u>		
Appr'l No. <u>SH00-48</u>		
Appr'l Date <u>00-12-08</u>		
Issue No. <u>2</u>		
Issue Date <u>02-06-27</u>		
YY-MM-DD		

Revision 0
19 May, 2002

TRANSPORT CANADA APPROVED

I LIMITATIONS

1. Attachment of any equipment to the External Attachment Provisions requires Transport Canada Approval.

II NORMAL PROCEDURES

1. No change from basic Approved Flight Manual.

III EMERGENCY PROCEDURES

1. No change from basic Approved Flight Manual.

IV PERFORMANCE

1. No change from basic Approved Flight Manual.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 493.90

EXTERNAL ATTACHMENT PROVISIONS

Bell 206L Series

Preface

These Instructions for Continued Airworthiness shall be included in the Bell 206L Series Maintenance Manual when the External Attachment Provisions are installed in accordance with AERO Design Ltd. Document Control List DCL493, Revision 6, or later approved revision.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 0
Date: 4 May, 2006

AERO Design Ltd.
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RECORD OF REVISIONS

Revision Number	Issue Date	Date Inserted	By
0			Original Issue

LIST OF EFFECTIVE PAGES

List of Revisions Revision 0 (Original Issue) 4 May, 2006

List of Effective Pages

<u>Title</u>	<u>Pages</u>	<u>Revision No.</u>
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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for the Bell 206L Series embodying the External Attachment Provisions as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the External Attachment Provisions. Requests for a copy may be made in writing to:

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2013 39th Avenue N.E.
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Fax: 403-250-8333
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 GENERAL DESCRIPTION

External Attachment Provisions are installed to allow the installation of various equipment, such as cargo baskets. On the Bell 206L Series, the forward and aft landing gear fittings are replaced. The new fittings and blocks incorporate a barrel nut for installing equipment.

0-5 STRUCTURAL PROVISIONS

The External Attachment Provisions are installed on the Bell 206L Series helicopter in accordance with Installation Drawing 49301. The forward and aft fittings are bolted to the lower fuselage and landing gear with the same fasteners as used for the original fittings, as shown in Figure 1.

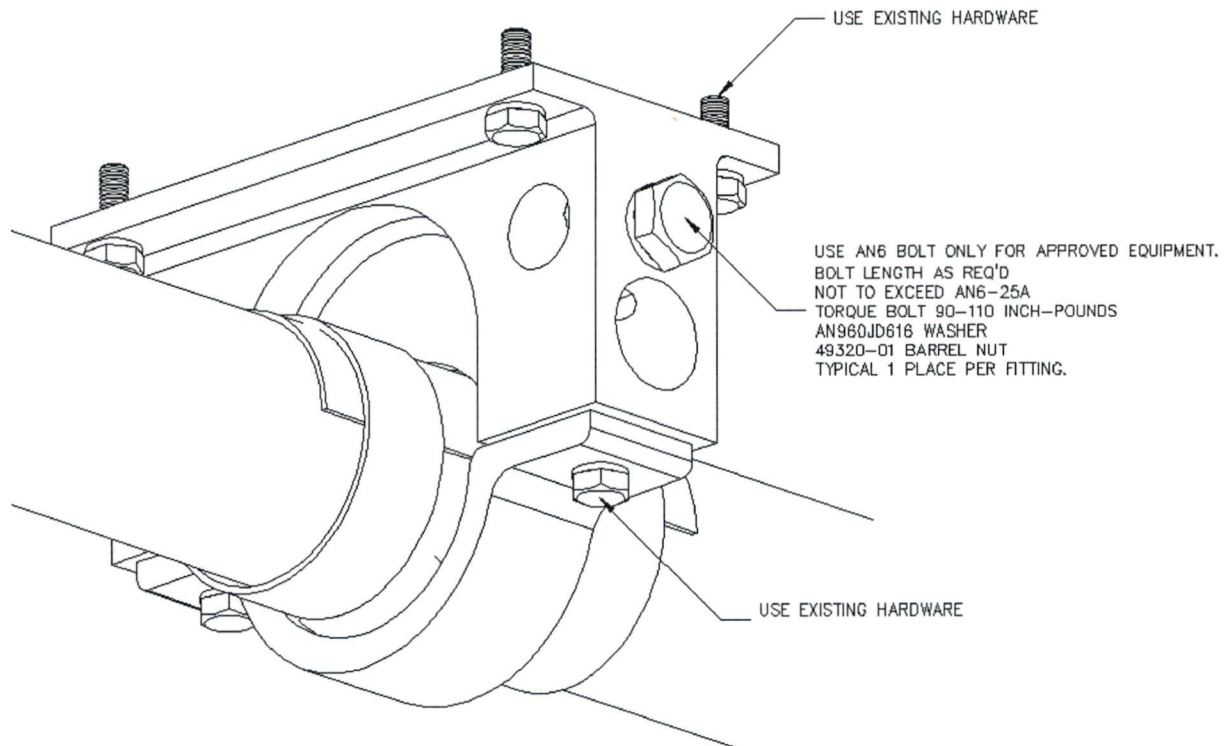


Figure 1 - Installation of External Attachment Provisions
(Forward shown, Aft similar)

CHAPTER 4 – AIRWORTHINESS LIMITATIONS

The Airworthiness Limitations section is Transport Canada-approved and specifies maintenance required under Section 571 of the Canadian Aviation Regulations, unless an alternative program has been approved.

No additional airworthiness limitations have been imposed due the installation of the External Attachment Provisions.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the Bell 206L Series Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of the External Attachment Provisions.

300 Hour or Annual Inspection

1. Inspection Area: Landing Gear Attachment Fittings
 - a) Visually inspect landing gear fittings in situ for cracks, corrosion or other damage.
 - b) Visually inspect hardware attaching fittings and hardware attaching cross-tubes to fitting in situ for security and damage.

Special Inspections

Following a hard landing inspect the External Attachment Provisions installation in accordance with the 300 hour or annual inspection listed above.

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Landing Gear Attachment Fittings

DO NOT REPAIR DAMAGE TO FITTINGS IF BEYOND THE LIMITS BELOW.

 - a) Nicks and/or gouges on any face up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour. Touch up paint as required.
 - b) Do not repair elongation of provision bolt slot (AN6 bolt). Slot is nominally 0.391" (25/64") in diameter with 1/4" maximum freedom of motion left and right.
 - c) Do not repair elongation of barrel nut hole. Hole is nominally 3/4" in diameter.

5-3 PROTECTIVE TREATMENT INFORMATION

The External Attachment Provisions are to be Alodined, primed with epoxy primer, and painted with polyurethane paint.

CHAPTER 11 – MARKINGS AND PLACARDS

The following markings are used with the External Attachment Provisions Installation in the locations noted:

- | | |
|---------------------------------------|----------|
| a) Located on top of forward fitting: | 49311-01 |
| b) Located on top of aft fitting: | 49312-01 |

CHAPTER 32 – LANDING GEAR

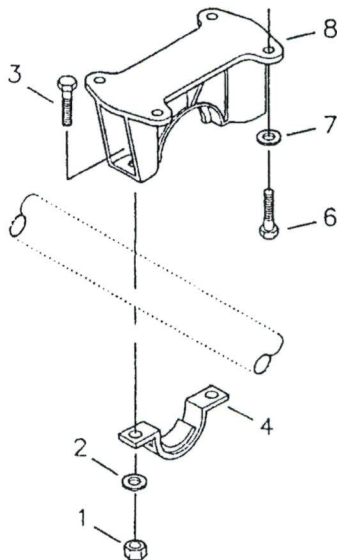
Refer to drawing 49301. Refer to Illustrated Parts Book for alternate part numbers to those that may be listed. Refer to Maintenance Manual for further information regarding installation and removal of landing gear attachments.

Raise helicopter using a jack or hoist rated at 5000 lbs or more when changing fittings. Raise helicopter until landing gear is at least 4" off the ground.

32-1 FORWARD LANDING GEAR FITTINGS INSTALLATION

Refer to Figure 4

1. Locate right hand forward Landing Gear Fitting (8) on bottom of helicopter and install with four Bolt (6) and Washer (7). Repeat for left side.
2. Raise front landing gear cross tube into position on the landing gear fittings.
3. Position Strap Assembly (4) under cross tube on landing gear fitting. Install two Bolt (3), Washer (2), and Nut (1).



Item	Part	Bell 206L
1	Nut	MS21042L4
2	Washer	MS20002C4
3	Bolt	NAS6604-10
4	Strap Assembly	206-052-105-031

6	Bolt	AN4-6A
7	Washer	NAS1149D0463J
8	Fitting (Original)	206-033-108-001
8	Fitting (New)	49311-01

Figure 4 – Forward Landing Gear Fitting

32-2 FORWARD LANDING GEAR FITTINGS REMOVAL

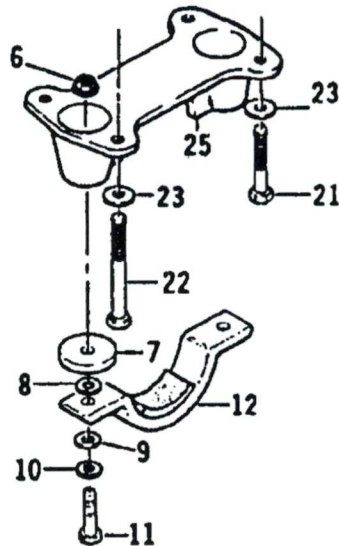
Refer to Figure 4

1. Remove any equipment installed on the External Attachment Provisions.
2. Remove two Bolt (3), Washer (2), Nut (1) from ends of Strap Assembly (4) and remove Strap Assembly from right hand forward Landing Gear Fitting (8). Repeat for left hand side.
3. Lower front landing gear cross tube to the ground.
4. Remove four Bolt (6) and Washer (7) from right hand forward Landing Gear Fitting (8) and remove fitting. Repeat for left hand side.

32-3 AFT LANDING GEAR FITTINGS INSTALLATION

Refer to Figure 5

1. Locate right hand aft Landing Gear Fitting (25) on bottom of helicopter and install with four Bolt (21, 22) and Washer (23). Repeat for left side.
2. Raise aft landing gear cross tube into position on the landing gear fittings.
3. Position Strap Assembly (12) under cross tube on landing gear fitting. Install two Bolt (11), Washers (8, 9, 10), Spacer (7), and Nut (6).



Item	Part	Bell 206L
6	Nut	MS21042L5
7	Spacer	206-053-123-001
8	Washer	AN970-5
9	Washer	NAS1149D0516J
10	Washer	MS20002C5
11	Bolt	NAS6605-11
12	Strap Assembly	206-052-105-035

21	Bolt	NAS6204-9
22	Bolt	NAS6204-25
23	Washer	NAS1149D0463J

25	Fitting (Original)	206-033-109-001
25	Fitting (New)	49312-01

Figure 5 – Aft Landing Gear Fitting

32-4 AFT LANDING GEAR FITTINGS REMOVAL

Refer to Figure 5

1. Remove any equipment installed on the External Attachment Provisions.
2. Remove two Bolt (11), Washers (8, 9, 10), Spacer (7), and Nut (6) from ends of Strap Assembly (12) and remove Strap Assembly from right hand aft Landing Gear Fitting (25). Repeat for left hand side.
3. Lower aft landing gear cross tube to the ground.
4. Remove four Bolt (21, 22) and Washer (23) from right hand aft Landing Gear Fitting (25) and remove fitting. Repeat for left hand side.

32-5 WEIGHT AND BALANCE

Part #	Name	Weight (lbs)	Longitudinal		Lateral	
			Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
49311-01	Forward Fitting (Pair)	2.68	73.0	195.6	0	0.0
49312-01	Aft Fitting (Pair)	3.44	154.74	532.3	0	0.0
	Total	6.12	118.9	727.9	0	0.0

32-6 STRUCTURAL FASTENER DATA

Refer to Bell Standard Practices Manual BHT-ALL-SPM for torque values not listed in this ICA.

Low Fixed
Basket

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS 49201 FMS492.01 ICA492.90	Cargo Basket Installation Flight Manual Supplement Instructions for Continued Airworthiness	3 2 1
FABRICATION DOCUMENTS DCL492-1	Document Control List for Side-Mounted Cargo Basket Assembly	1
ENGINEERING DOCUMENTS		
APPROVAL:  Transport Canada Transports Canada AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>D. S. Clouston</u> Appr'l No. <u>8H00-48</u> Appr'l Date <u>00-12-08</u> Issue No. <u>6</u> Issue Date <u>08-01-30</u> <small>YY - MM - DD</small>	ORIGINAL DATE: 17 May, 2002 REVISION DATE: 28 September, 2007	AERO DESIGN LTD. 2013 - 39 th Ave. NE Calgary, Alberta T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	SHEET 1 OF 1	BELL 206L SERIES Side-Mounted Cargo Basket Installation
	DCL492	Rev. 6

BELL 206L SERIES**ROTORCRAFT FLIGHT MANUAL SUPPLEMENT
for the
INSTALLATION of the AERO DESIGN CARGO BASKET**Supplemental Type Certificate No. SH00-48, Issue 2

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 206L when fitted with the Cargo Basket. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

	Transport Canada	Transports Canada
AIRCRAFT CERTIFICATION DIVISION		
APPROVED		
By	<i>D. S. Austen</i>	
App'l No.	SH00-48	
App'l Date	00-12-08	
Issue No.	2	
Issue Date	02-06-27	
YY-MM-DD		

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V	Weight and Balance	4

I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Cargo Basket is 200 Lb. (90,9 kg).
2. Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 350 fpm.

Cruise speeds are reduced by approximately 10 mph.

V WEIGHT AND BALANCE

English Units

Item	Weight (Lb)	Longitudinal		Lateral	
		Arm (in)	Moment (in*Lb)	Arm (in)	Moment (in*Lb)
Cargo Basket Installation	68.3	113.6	7762	30.6	2089
Cargo	200 (MAX)	114.1	22820	38.5	7700

Metric Units


Item	Weight (Kg)	Longitudinal		Lateral	
		Arm (mm)	Moment (mm*Kg)	Arm (mm)	Moment (mm*Kg)
Cargo Basket Installation	30,9	2885	89 160	777	24 016
Cargo	90,9 (MAX)	2898	263 467	978	88 900

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
60601	Cargo Basket Installation	2
FMS606.01	Flight Manual Supplement	2
ICA492.90	Instructions for Continued Airworthiness	1
FABRICATION DOCUMENTS		
DCL492-1	Document Control List for Side-Mounted Cargo Basket Assembly	1
ENGINEERING DOCUMENTS		
ER606.01	Engineering Report – Basket Installation	0
ER606.02	Engineering Report – Load Test	0
APPROVAL:		
 <div> Transport Canada Transport Canada AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>D.S. Austin</u> Appr'l No. <u>SH00-48</u> Appr'l Date <u>00-12-08</u> Issue No. <u>6</u> Issue Date <u>08-01-30</u> YY-MM-DD </div>	ORIGINAL DATE: 31 May, 2004 REVISION DATE: 28 September, 2007	AERO DESIGN LTD. 2013 - 39 th Avenue N.E. Calgary, Alberta T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	SHEET 1 OF 1	BELL 407 Side-Mounted Cargo Basket Installation
	DCL606	Rev. 3

BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the **INSTALLATION of the AERO DESIGN CARGO BASKET**

Supplemental Type Certificate No. SH00-48

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with the Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



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I	Limitations	3
II	Normal Procedures	3
III	Emergency Procedures	4
IV	Performance	4
V	Weight and Balance	5

I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Cargo Basket is 200 Lb. (90.9 kg).
2. Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
3. Maximum lateral or rearward speed limited to 25 KIAS.
4. Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
5. V_{NE} is 140 KIAS except when the V_{NE} of the basic rotorcraft is more restrictive, in which case the lower V_{NE} applies.
6. High Basket configuration – No occupants in the passenger cabin unless helicopter is equipped with approved push out emergency windows or sliding door on the basket side of the helicopter.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 200 fpm.

Cruise speeds are reduced by approximately 10 kts. (11 mph).

V WEIGHT AND BALANCE

1. The following weight and balance are for the low mounted cargo basket configuration, installed in accordance with drawing 60601.

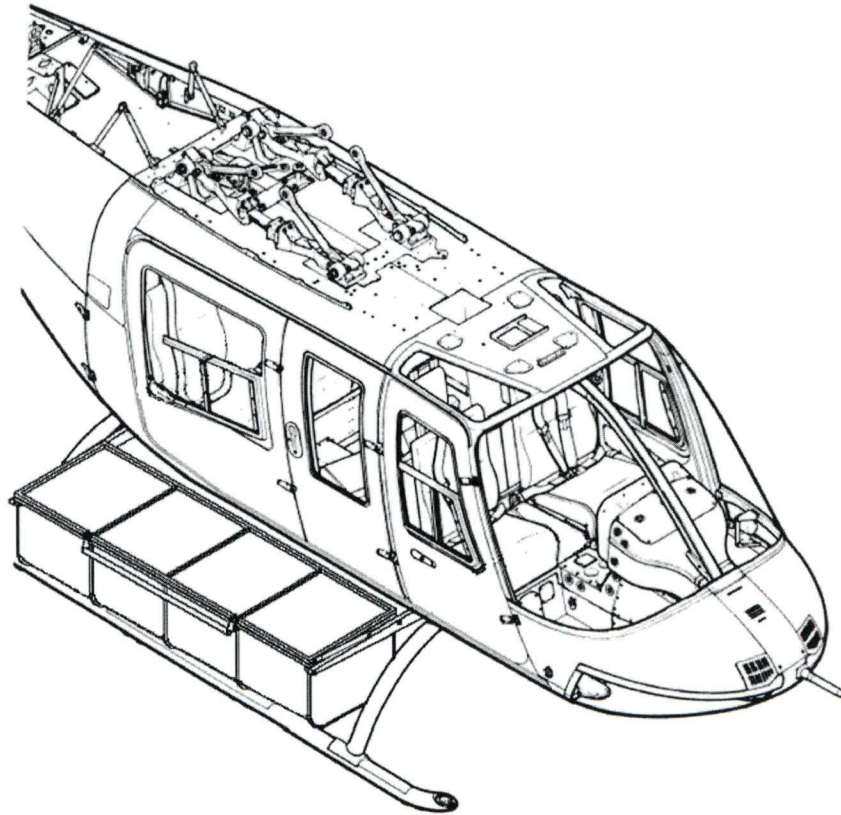


Figure 1 – Low Mounted Cargo Basket Configuration

Low Mounted Cargo Basket Configuration

English Units

Item	Weight (Lb)	Longitudinal		Lateral	
		Arm (in)	Moment (in*Lb)	Arm (in)	Moment (in*Lb)
Cargo Basket Installation	68.3	113.6	7762	30.6	2089
Cargo	200 (MAX)	114.1	22820	38.5	7700

Metric Units

Item	Weight (Kg)	Longitudinal		Lateral	
		Arm (mm)	Moment (mm*Kg)	Arm (mm)	Moment (mm*Kg)
Cargo Basket Installation	30,9	2885	89 160	777	24 016
Cargo	90.9 (MAX)	2898	263 467	978	88 900

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

2. The following weight and balance are for the high mounted cargo basket configuration, installed in accordance with drawing 60603.

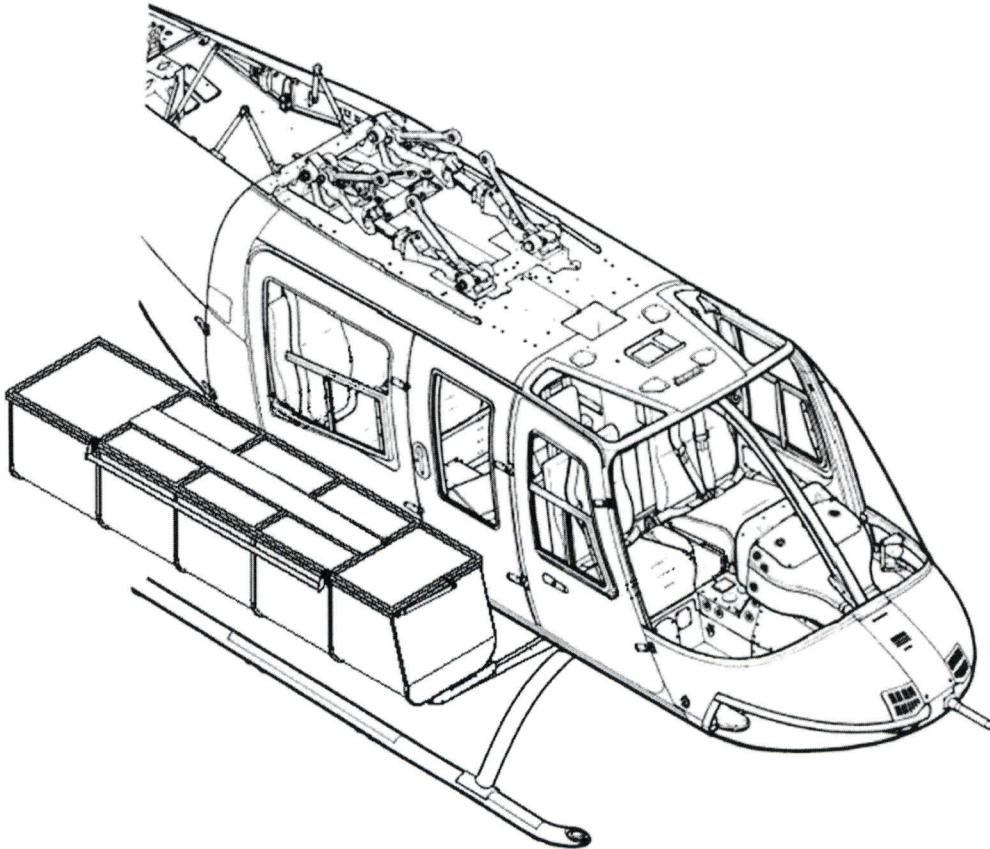


Figure 2 – High Mounted Cargo Basket Installation

High Mounted Cargo Basket Configuration

English Units

Item	Weight (Lb)	Longitudinal		Lateral	
		Arm (in)	Moment (in*Lb)	Arm (in)	Moment (in*Lb)
Cargo Basket Installation	86.5	121.0	10469	37.7	3258
Cargo	200 (MAX)	124.8	24960	46.8	9350

Metric Units

Item	Weight (Kg)	Longitudinal		Lateral	
		Arm (mm)	Moment (mm*Kg)	Arm (mm)	Moment (mm*Kg)
Cargo Basket Installation	39.1	3073	120 154	958	37 458
Cargo	90.9 (MAX)	3170	288 153	1189	108 080

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 492.90

LOW MOUNTED CARGO BASKET

Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Low Mounted Cargo Basket assembled in accordance with AERO Design Ltd. Document Control List DCL492-1, Revision 0, or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 0
Date: 4 May, 2006

AERO Design Ltd.
Engineering Consultants

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RECORD OF REVISIONS

Revision Number	Issue Date	Date Inserted	By
0			Original Issue

LIST OF EFFECTIVE PAGES

List of Revisions

Revision 0 (Original Issue) 4 May, 2006

List of Effective Pages

<u>Description</u>	<u>Pages</u>	<u>Revision No.</u>
Cover	1	0
Revision Record/List of Effective Pages	2	0
Table of Contents	3	0
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04-00-00	7	0
05-00-00	8-10	0
11-00-00	11	0
25-50-00	12-14	0

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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for the rotorcraft embodying the Low Mounted Cargo Basket as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Low Mounted Cargo Basket. Requests for a copy may be made in writing to:

AERO Design Ltd.
2013 39th Avenue N.E.
Calgary, Alberta
T2E 6R7
Fax: 403-250-8333
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

0-5 GENERAL DESCRIPTION

The cargo basket installation is a metal mesh basket installed to the side of the helicopter on beams attached to landing gear fittings with attachment provisions incorporated.

The basket itself is 73.6" long, 22.5" wide, and 17" high. It is made of a 4130 steel welded tubing structure, and lined with expanded steel mesh. The basket has a hinged lid with a self-locking handle.

The beams are aluminum flat bar or steel tubing which attach to the landing gear fittings and stick out from the side of the helicopter.

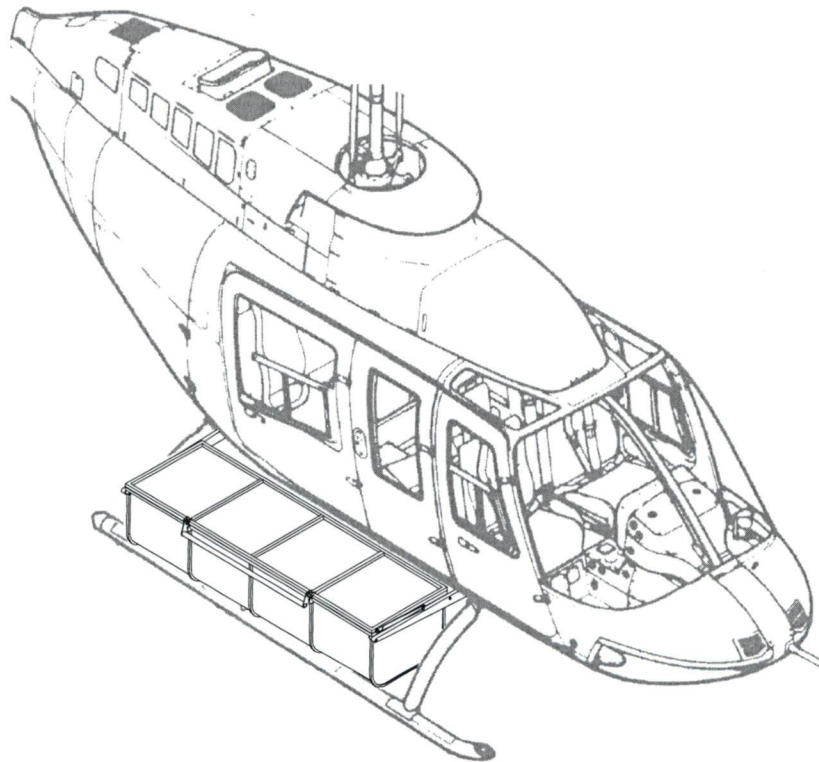


Figure 1 – Basket Installation

0-6 STRUCTURAL PROVISIONS

The External Attachment Provisions are installed on the helicopter in accordance with drawing 49301 (Bell 206L Series) or 60602 (Bell 407). That installation is separate from the basket installation. The External Attachment Provisions are not included in this ICA.

The external attachment provisions consist of replacement landing gear fittings that incorporate a barrel nut for installing equipment. Each fitting is bolted to the lower fuselage and landing gear with the same fasteners as used for the original fittings, as shown in Figure 2.

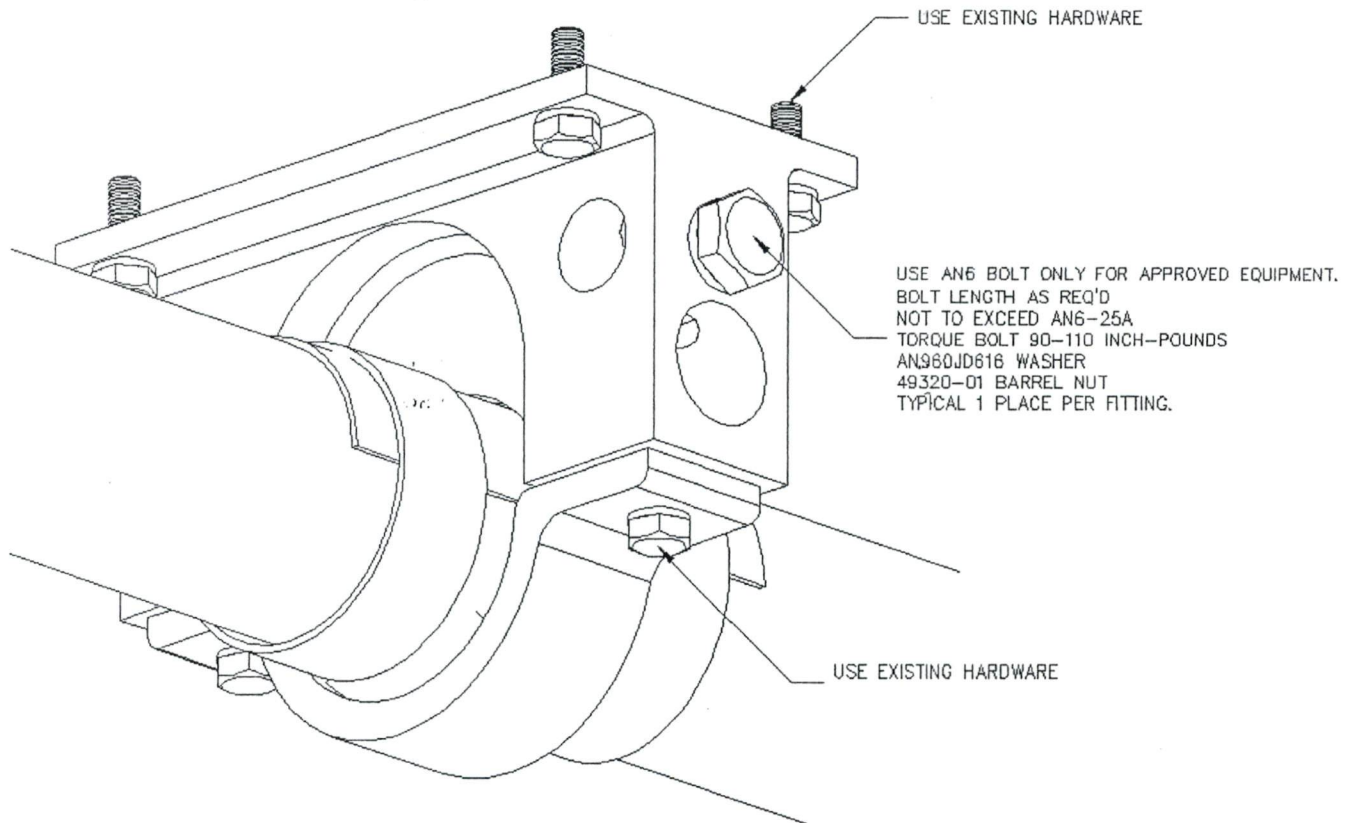


Figure 2 - Installation of External Attachment Provisions

CHAPTER 4 – AIRWORTHINESS LIMITATIONS

The Airworthiness Limitations section is Transport Canada-approved and specifies maintenance required under Section 571 of the Canadian Aviation Regulations, unless an alternative program has been approved.

No additional airworthiness limitations have been imposed due the installation of the Low Mounted Cargo Basket.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Low Mounted Cargo Basket.

Daily Inspection

1. Inspection Area: Basket
 - a) Inspect latching of the lid for correct operation. If basket is bent inward the lid will close but may not latch.

300 Hour or Annual Inspection

1. Inspection Area: Basket
 - a) Visually inspect tube-to-tube welds and mesh-to-tube welds for cracks, corrosion or other damage.
 - b) Visually inspect basket mesh for damage.
2. Inspection Area: Beams
 - a) Visually inspect beams attaching basket to the helicopter for cracks, corrosion or other damage.
 - b) Visually inspect bolts attaching the basket to the beams for security and damage.
 - c) Visually inspect bolts attaching beams to external attachment provisions for security and damage.

Special Inspections

Following a hard landing inspect the Low Mounted Cargo Basket installation in accordance with the 300 hour or annual inspection listed above.

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Basket

a) Repair Basket in accordance with AC43.13-1B, Chapter 4, Section 5, Welding, as required.

b) Basket is fabricated from the following materials:

Lid and Rim: $\frac{3}{4}$ " x 0.035" square 4130 steel tube

Frames: $\frac{1}{2}$ " x 0.035" square 4130 steel tube

Mesh: $\frac{3}{4}$ " 16 ga. (0.040") expanded carbon steel mesh

c) Touch up with polyurethane paint as required following repairs.

2. Beams (Aluminum)

DO NOT REPAIR DAMAGE TO BEAMS IF BEYOND THE LIMITS BELOW.

a) Nicks and/or gouges on the top or bottom face up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour.

b) Nicks and/or gouges on the side faces up to 0.060" deep and 0.125" wide may be dressed out to a smooth contour.

c) Nicks on the corners up to 0.125" deep may be dressed out.

d) For elongation of basket attachment holes (AN4 bolt):

1. Ream hole to 0.375 (+0.0005/-0.0000)

2. Insert NAS76A4-100 bushing

e) For elongation of helicopter attachment holes (AN6 bolt):

1. Ream hole to 0.5000 (+0.0005/-0.0000)

2. Insert NAS76A6-100 bushing

f) Touch up with polyurethane paint as required following repairs.

3. Beams (Steel)

DO NOT REPAIR DAMAGE TO BEAMS IF BEYOND THE LIMITS BELOW.

a) Nicks and/or gouges on the top or bottom face up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour.

b) Nicks and/or gouges on the side faces up to 0.060" deep and 0.125" wide may be dressed out to a smooth contour.

c) Touch up with polyurethane paint as required following repairs.

5-3 PROTECTIVE TREATMENT INFORMATION

1. Beams (Aluminum)

The beams are supplied painted white. If the paint is damaged, touch up with white polyurethane paint.

2. Beams (Steel)

The beams are supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint.

3. Cargo Basket

The cargo basket is supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint.

CHAPTER 11 – MARKINGS AND PLACARDS

The following markings and placards are used with the Low Mounted Cargo Basket Installation in the locations noted:

- a) Located on basket lid:



- | | |
|---|----------|
| b) Located on top of aluminum forward beam: | 49221-01 |
| c) Located on top of aluminum aft beam: | 49221-02 |
| d) Located on top of steel forward beam: | 49222-01 |
| e) Located on top of steel aft beam: | 49222-02 |

CHAPTER 25 – EQUIPMENT AND FURNISHINGS

SECTION 50 – CARGO COMPARTMENTS

25-1 BEAMS INSTALLATION

Refer to Figure 3

1. External Attachment Provisions installed in accordance with drawing 49301 (Bell 206L Series) or 60602 (Bell 407) are required prior to installing the Beams.
2. Locate 49221-01 Forward Beam (49222-01 alternate) on aft side of Forward Landing Gear Fittings. Install two AN6-20A Bolt and AN960-616 Washer into Barrel Nuts in Fittings. Torque AN6 bolts to 90-110 in-lbs.
3. Locate 49221-02 Aft Beam (49222-02 alternate) on forward side of Aft Landing Gear Fittings. Install two AN6-20A Bolt and AN960-616 Washer into Barrel Nuts in Fittings. Torque AN6 bolts to 90-110 in-lbs.

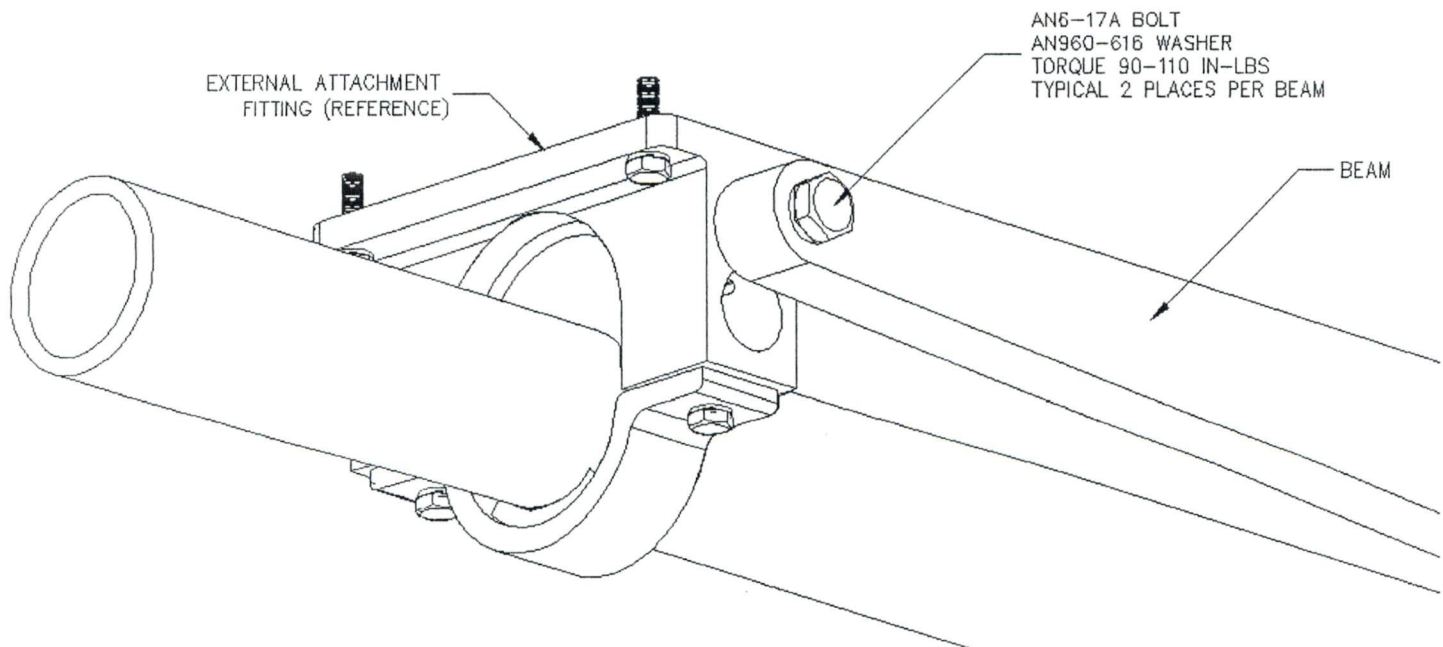


Figure 3 – Beams Installation/Removal

25-2 BEAMS REMOVAL

Refer to Figure 3

1. Remove Cargo Basket. Refer to section 25-4.
2. Remove two AN6-20A Bolt and AN960-616 Washer from Forward Beam. Remove Forward Beam.
3. Remove two AN6-20A Bolt and AN960-616 Washer from Aft Beam. Remove Aft Beam.

25-3 BASKET INSTALLATION

Refer to Figure 4

1. Locate basket in position between beams. Insert one (1) AN4-23A Bolt with AN960-416 Washer through inboard hole on beam at forward and aft end of basket.
2. Swing basket up and insert one (1) AN4-23A Bolt with AN960-416 Washer through outboard hole on beam at forward and aft end of basket.
3. Install one (1) AN960-416 Washer and MS21044N4 Nut on each AN4 bolt. Torque AN4 Bolts to 50-70 in-lbs.

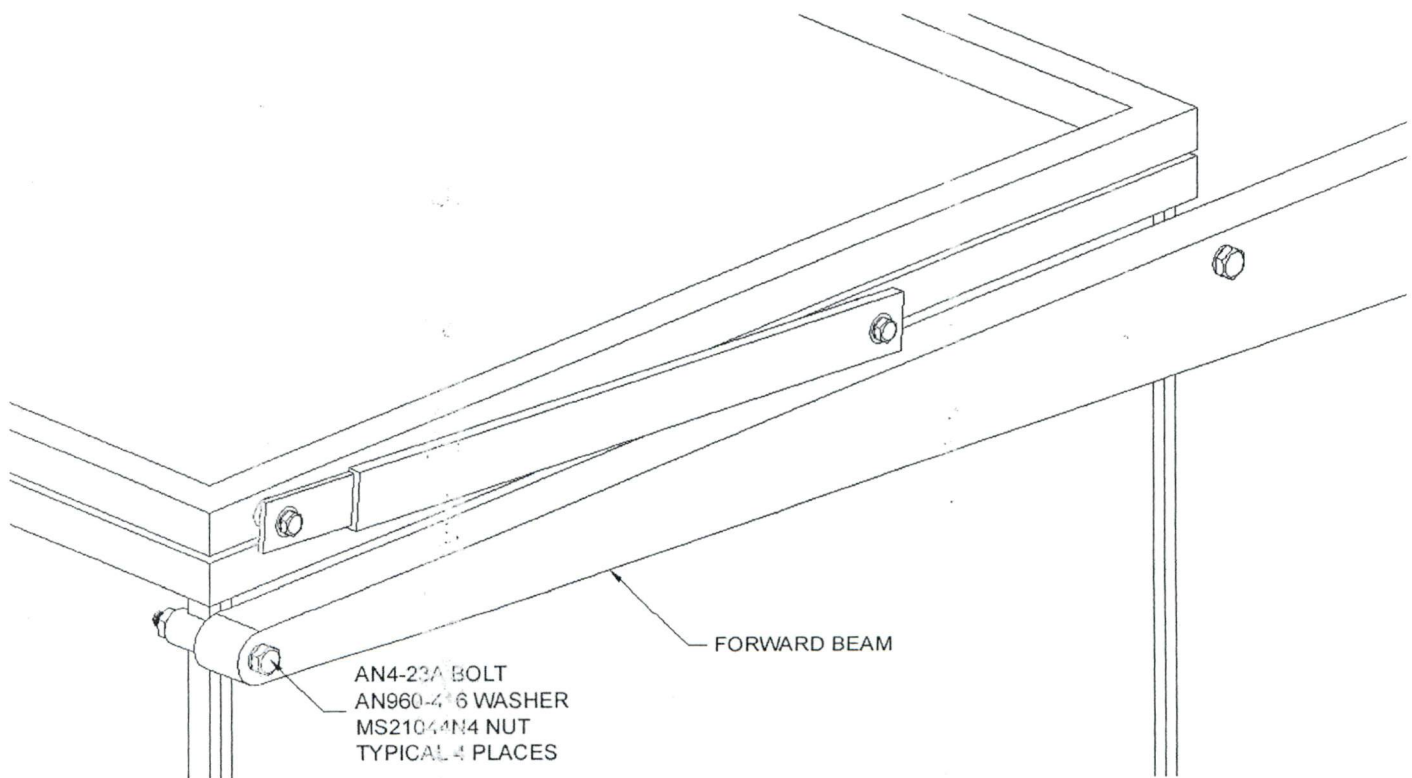


Figure 4 – Basket Installation/Removal

25-4 BASKET REMOVAL

Refer to figure 4.

1. Remove four (4) AN4-23A Bolts, eight (8) AN960-416 Washers and four (4) MS21044N4 Nuts securing basket to beams.
2. Remove basket from helicopter.

25-5 WEIGHT AND BALANCE



Configuration 1 – Aluminum Beams		Longitudinal		Lateral	
Part #	Name	Weight (lbs)	Arm (in)	Moment (in-lbs)	Moment (in-lbs)
49221-01	Forward Beam	13.0	76.4	993.2	217.1
49221-02	Aft Beam	12.3	151.4	1862.2	216.5
49205-01	Cargo Basket	43.0	114.1	4906.3	1655.5
Total		68.3	113.6	7761.7	2089.1

Configuration 2 – Steel Beams		Longitudinal		Lateral	
Part #	Name	Weight (lbs)	Arm (in)	Moment (in-lbs)	Moment (in-lbs)
49222-01	Forward Beam	12.0	76.4	916.8	216.0
49222-02	Aft Beam	11.3	151.4	1710.8	221.5
49205-01	Cargo Basket	43.0	114.1	4906.3	1655.5
Total		66.3	113.6	7533.9	2093.0

25-6 STRUCTURAL FASTENER DATA

Refer to Bell Standard Practices Manual BHT-ALL-SPM for torque values not listed in this ICA.

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
49205	Cargo Basket Assembly	1
49207	Cargo Basket Lid	1
49208	Cargo Basket Body	1
49209	End Hoop Assembly	1
49210	Basket Components – Hoops	1
49211	Basket Components – Rim	1
49212	Basket Components – Rim	0
49213	Basket Components – Lid Brace	1
49214	Basket Components – Spine	0
49215	Basket Components – Spacer	0
49216	Basket Components – Spacer	0
49217	Basket Components – Lug	1
49218	Placard	1
49221	Support Beams	3
49222	Support Beams (Steel)	2
36255	Handle Assembly	1
36261	Handle Bar Assembly	3
36262	Handle Bracket Assembly	1
36271	Handle Lever	1
36272	Basket Bracket	1
36273	Lid Bracket	1
36274	Bushing	1
36275	Bushing	2
36277	Handle Bar	0
36278	Spring	1
36280, Sheet 1	Brace	2
36280, Sheet 2	Brace	2
ENGINEERING DOCUMENTS		
ER492.01	Engineering Report – Basket Installation	0
ER492.02	Engineering Report – Basket Load Tests	0
ER492.03	Engineering Report – Steel Beams	0
ER492.04	Engineering Report – Pocketed Beams	0
APPROVAL:		
 Transport Canada Transports Canada AIRCRAFT CERTIFICATION DIVISION APPROVED By <u><i>D. S. [Signature]</i></u> Appr'l No. <u>SH00-48</u> Appr'l Date <u>00-12-08</u> Issue No. <u>6</u> Issue Date <u>08-01-30</u> YY-MM-DD		ORIGINAL DATE: 4 May, 2006 REVISION DATE: 28 September, 2007
 AERO DESIGN LTD. 2013 – 39 th Ave. NE Calgary, Alberta T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333		
SHEET 1 OF 1		Side-Mounted Cargo Basket Assembly
DCL492-1		Rev. 1

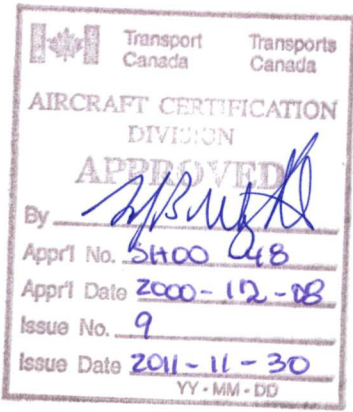
Low Q.R.
Basket

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
94501	Quick Release Cargo Basket Installation	0
70102	Quick Release Mounting Provisions Installation	0
FMS701.90	Flight Manual Supplement	3
ICA698.90	Instructions for Continued Airworthiness	2
SI698.91	Service Instructions – Sliding Door Modification	0
FABRICATION DOCUMENTS		
DCL945-10	Document Control List for Cargo Basket Assembly	0
DCL698-2	Document Control List for Beams	4
<div style="display: flex; justify-content: space-between;"> <div style="width: 35%;"> <p>APPROVAL:</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <div style="text-align: right;"> <small>Transport Canada</small> <small>Transports Canada</small> </div> </div> <p style="text-align: center;">AIRCRAFT CERTIFICATION DIVISION</p> <p style="text-align: center; font-size: 1.2em;">APPROVED</p> <p>By <u><i>[Signature]</i></u></p> <p>App'l No. <u>2400-48</u></p> <p>App'l Date <u>2000-12-08</u></p> <p>Issue No. <u>9</u></p> <p>Issue Date <u>2011-11-30</u></p> <p style="text-align: center; font-size: 0.8em;">YY - MM - DD</p> </div> <div style="width: 35%;"> <p>ORIGINAL DATE: 27 October 2011</p> <p>REVISION DATE:</p> </div> <div style="width: 30%;"> <p style="text-align: center; font-weight: bold; font-size: 1.1em;"><i>AERO</i> DESIGN LTD.</p> <p style="font-size: 0.9em;">2013 – 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 www.aerodesign.ca</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 35%;"> <p>SHEET 1 OF 1</p> </div> <div style="width: 30%; text-align: center;"> <p>Bell 407 Quick Release Cargo Basket Installation</p> </div> <div style="width: 30%; text-align: center;"> <p>Rev.</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 65%; text-align: center; font-size: 2em; font-weight: bold;">DCL945-1</div> <div style="width: 30%; text-align: center; font-size: 3em; font-weight: bold;">0</div> </div>		

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
94601	Quick Release Cargo Basket Installation	0
70102	Quick Release Mounting Provisions Installation	0
FMS701.90	Flight Manual Supplement	3
ICA698.90	Instructions for Continued Airworthiness	2
SI698.91	Service Instructions – Sliding Door Modification	0
FABRICATION DOCUMENTS		
DCL946-10	Document Control List for Cargo Basket Assembly	0
DCL698-2	Document Control List for Beams	4

APPROVAL: 	ORIGINAL DATE: 27 October 2011 REVISION DATE:	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 www.aerodesign.ca
	SHEET 1 OF 1	Bell 407 Quick Release Cargo Basket Installation
	<h2 style="margin: 0;">DCL946-1</h2>	Rev. <h2 style="margin: 0; text-align: center;">0</h2>

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
70101	Quick Release Cargo Basket Installation	4
70102	Quick Release Mounting Provisions Installation	0
ICA698.90	Instructions for Continued Airworthiness	2
FMS701.90	Flight Manual Supplement	3
SI698.91	Service Instructions – Sliding Door Modification	0
FABRICATION DOCUMENTS		
DCL698-1	Document Control List for Quick Release Cargo Basket	2
DCL698-2	Document Control List for Beams	4

APPROVAL: <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <div style="display: inline-block; text-align: center;"> Transport Canada </div> <div style="display: inline-block; text-align: center;"> Transports Canada </div> </div> <div style="margin-top: 10px;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u><i>[Signature]</i></u> Appr'l No. <u>SH00-48</u> Appr'l Date <u>2000-12-08</u> Issue No. <u>9</u> Issue Date <u>2011-11-30</u> <small>YY - MM - DD</small> </div>	ORIGINAL DATE: 10 May, 2006 REVISION DATE: 27 October, 2011	<div style="text-align: center; margin-top: 10px;"> AERO DESIGN LTD. 2013 – 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div>
SHEET 1 OF 1	Bell 407 Quick Release Cargo Basket Installation	
<div style="font-size: 2em; font-weight: bold;">DCL701</div>		Rev. <div style="font-size: 2em; font-weight: bold;">4</div>

BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET AND/OR QUICK RELEASE STEP

Canadian Supplemental Type Certificate No. SH00-48
FAA Supplemental Type Certificate No. SR02253NY

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with the Quick Release Cargo Basket or Quick Release Step Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



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V	Weight and Balance	5
VI	Installation / removal instructions	9

Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By
0	05 May, 2006	None		
1	09 Nov, 2006	2, 6		
2	17 July, 2008	All		
3	26 Oct, 2011	All		

I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Quick Release Cargo Basket is 300 lb. (136 kg).
2. Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
3. Maximum lateral or rearward speed limited to 25 KIAS.
4. Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
5. V_{NE} is 140 KIAS except when the V_{NE} of the basic rotorcraft is more restrictive, in which case the lower V_{NE} applies.
6. Quick Release Step may be installed when the basket is removed.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - c) Ensure the basket is locked in position on the beams. Pull up on the forward and aft end of the basket to check.
 - d) Ensure the step is locked in position on the beams. Pull up on the forward and aft end of the step to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

With the cargo basket installed:

Climb performance is reduced by up to 200 fpm.

Cruise performance and range are reduced by 10 percent.

V WEIGHT AND BALANCE

1. The following weight and balance is for the low mounted quick release cargo basket configuration, installed in accordance with drawing 70101.

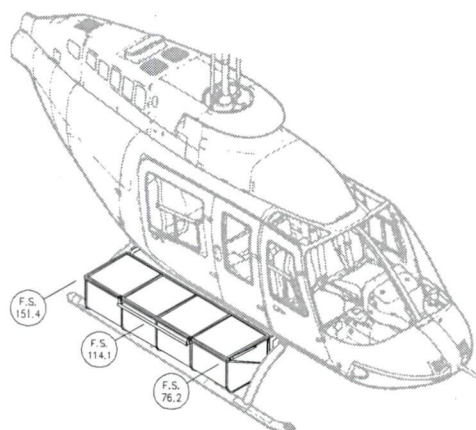


Figure 1 – Quick Release Cargo Basket (70101 Configuration)

Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Basket Only ¹	45.0 lb	114.1 in	5134 in*lb	38.5 in	1733 in*lb
	20.4 kg	2898 mm	59 122 mm*kg	978 mm	19 949 mm*kg
Cargo ² (MAX)	300 lb	114.1 in	34 230 in*lb	38.5 in	11 550 in*lb
	136 kg	2898 mm	393 413 mm*kg	978 mm	132 747 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

2. The following weight and balance is for the quick release step configuration, installed in accordance with drawing 80002.

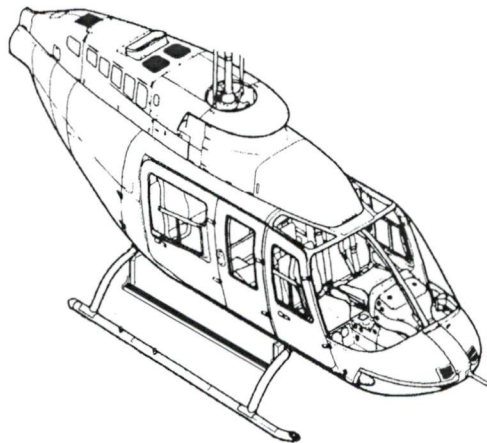


Figure 2 –Quick Release Step Configuration

Quick Release Step Configuration

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Step Only ¹	8.2 lb	114.1 in	935.6 in*lb	29.3 in	239.9 in*lb
	3.7 kg	2898 mm	10 723 mm*kg	744 mm	2 754 mm*kg

Quick Release Step Configuration (Stowed Position)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Step Only ¹	8.2 lb	114.1 in	935.6 in*lb	23.7 in	194.3 in*lb
	3.7 kg	2898 mm	10 723 mm*kg	602 mm	2 227 mm*kg

¹ Weight and balance is for Step only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

3. The following weight and balance is for the large low mounted quick release cargo basket configuration, installed in accordance with drawing 94501.

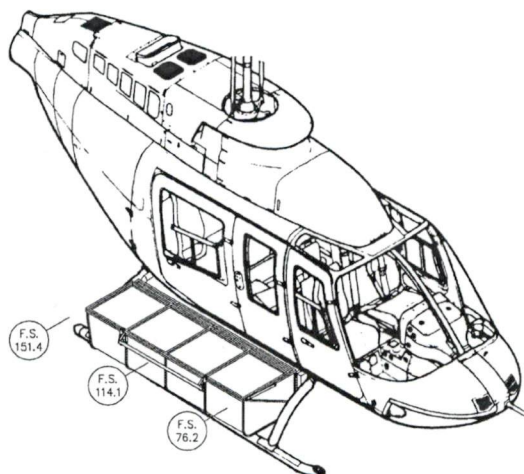


Figure 3 – Quick Release Cargo Basket (94501 Configuration)

Large Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Basket Only ¹	47.8 lb	114.1 in	5 454 in*lb	39.6 in	1 893 in*lb
	21.6 kg	2898 mm	62 684 mm*kg	1006 mm	21 755 mm*kg
Cargo ² (MAX)	300 lb	114.1 in	34 230 in*lb	39.6 in	11 880 in*lb
	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

4. The following weight and balance is for the large, long, low mounted quick release cargo basket configuration, installed in accordance with drawing 94601.

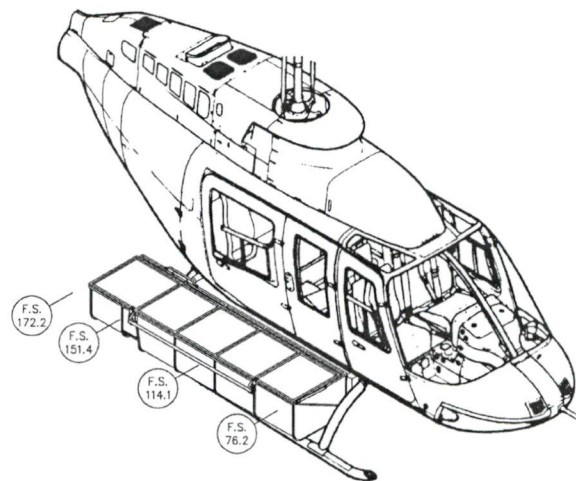


Figure 4 – Quick Release Cargo Basket (94601 Configuration)

Large Long Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Basket Only ¹	63.0 lb	125.0 in	7 875 in*lb	39.6 in	2 495 in*lb
	28.5 kg	3175 mm	90 509 mm*kg	1006 mm	28 673 mm*kg
Cargo ² (MAX)	300 lb	114.1 in	34 230 in*lb	39.6 in	11 880 in*lb
	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The Quick Release Mounting Provisions are installed in accordance with drawing 70102. The Quick Release Basket is installed in accordance with drawing 70101, 94501, or 94601 as applicable. The Quick Release Step is installed in accordance with drawing 80002. Removal of the basket or step leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket or step and which weight and balance amendment is in effect is required.

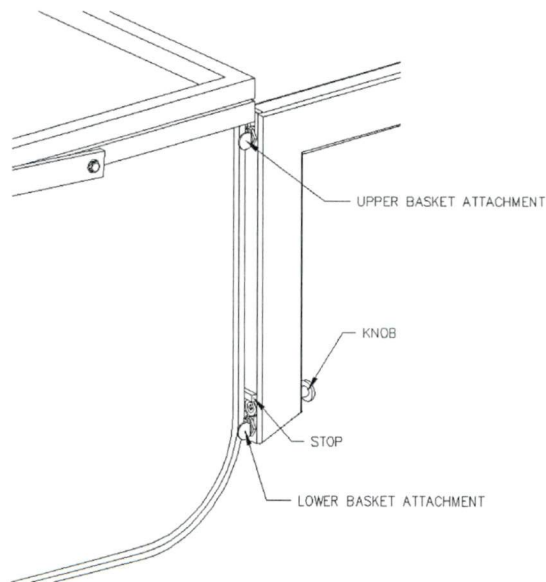


Figure 3 – Basket Attachment

1. Basket Installation - Refer to Figure 3.
 1. Set basket upper attachment into slot on forward and aft beams.
 2. At forward end of basket, lift until lower attachment fitting hits stop over keyway. Push fitting into keyway and slide basket down until locked. Repeat for aft end.
2. Basket Removal - Refer to Figure 3.
 1. Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in slot in beam. Repeat for aft end.

2. Lift basket until upper attachments are out of slots on beams and remove basket from helicopter.

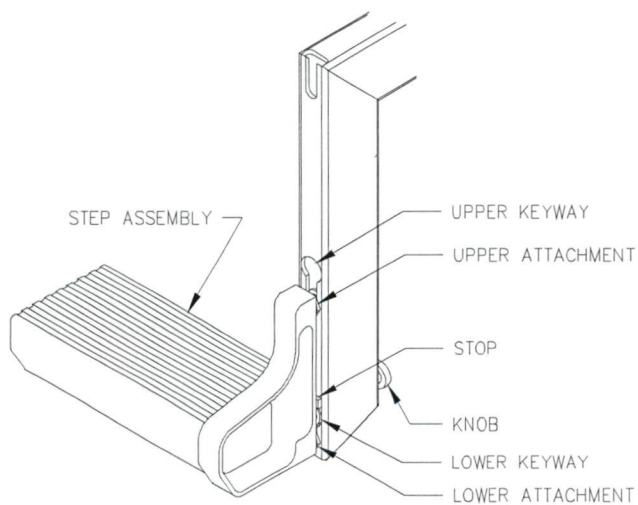



Figure 4 – Step Attachment

3. Step Installation – Refer to Figure 4.
 1. Set upper attachment into upper keyway on forward and aft beams.
 2. Lift step until lower attachment hits stop over keyway. Push fitting into keyway and slid down until locked.
4. Step Removal – Refer to Figure 4.
 1. Pull knob at bottom end of forward beam and lift step until the lower attachment fitting is free of keyway. Keep upper attachment in keyway in beam. Repeat for aft end.
 2. Lift step until upper attachments are out of keyways in beams and remove from helicopter.


DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
94602	Quick Release Cargo Basket Installation	0
70202	Quick Release Mounting Provisions Installation	0
FMS702.90	Flight Manual Supplement	3
ICA698.90	Instructions for Continued Airworthiness	2
FABRICATION DOCUMENTS		
DCL946-10	Document Control List for Cargo Basket Assembly	0
DCL698-2	Document Control List for Beams	4
<div> <div> APPROVAL:  </div> <div> ORIGINAL DATE: 27 October 2011 REVISION DATE: </div> <div> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 www.aerodesign.ca </div> </div>		
SHEET 1 OF 1		Bell 206L Series Quick Release Cargo Basket Installation
DCL946-2		Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION	
INSTALLATION DOCUMENTS			
94502	Quick Release Cargo Basket Installation	0	
70202	Quick Release Mounting Provisions Installation	0	
FMS702.90	Flight Manual Supplement	3	
ICA698.90	Instructions for Continued Airworthiness	2	
FABRICATION DOCUMENTS			
DCL945-10	Document Control List for Cargo Basket Assembly	0	
DCL698-2	Document Control List for Beams	4	
APPROVAL:			
 <div style="display: flex; justify-content: space-between;"> <div>Transport Canada</div> <div>Transports Canada</div> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u><i>[Signature]</i></u> App'l No. <u>5H00-48</u> App'l Date <u>2000-12-08</u> Issue No. <u>9</u> Issue Date <u>2011-11-30</u> <small>YY-MM-DD</small> </div>	ORIGINAL DATE: 27 October 2011 REVISION DATE:	<div style="text-align: center;">AERO DESIGN LTD.</div> 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 www.aerodesign.ca	
	SHEET 1 OF 1	Bell 206L Series Quick Release Cargo Basket Installation	
	DCL945-2		Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
70201	Quick Release Cargo Basket Installation	4
70202	Quick Release Mounting Provisions Installation	0
ICA698.90	Instructions for Continued Airworthiness	2
FMS702.90	Flight Manual Supplement	3
FABRICATION DOCUMENTS		
DCL698-1	Document Control List for Quick Release Cargo Basket	2
DCL698-2	Document Control List for Beams	4
<div> <div> APPROVAL:  </div> <div> ORIGINAL DATE: 10 May, 2006 REVISION DATE: 27 October, 2011 </div> <div> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div> </div>		
SHEET 1 OF 1		Bell 206L Series Quick Release Cargo Basket Installation
DCL702		Rev. 3

BELL 206L SERIES

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET AND/OR QUICK RELEASE STEP

Canadian Supplemental Type Certificate No. SH00-48
FAA Supplemental Type Certificate No. SR02253NY

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 206L Series when fitted with the Quick Release Cargo Basket or Quick Release Step Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By
0	05 May, 2006	None		
1	09 Nov, 2006	2, 6		
2	17 July, 2008	All		
3	26 Oct, 2011	All		

I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Quick Release Cargo Basket is 300 lb. (136 kg).
2. Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
3. Quick Release Step may be installed when the basket is removed.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - c) Ensure the basket is locked in position on the beams. Pull up on the forward and aft end of the basket to check.
 - d) Ensure the step is locked in position on the beams. Pull up on the forward and aft end of the step to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

With the cargo basket installed:

Climb performance is reduced by up to 350 fpm.

Cruise performance and range are reduced by 10 percent.

V WEIGHT AND BALANCE

1. The following weight and balance is for the low mounted quick release cargo basket configuration, installed in accordance with drawing 70201.

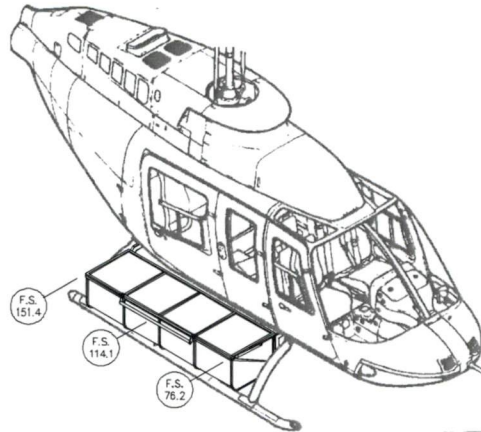


Figure 1 – Quick Release Cargo Basket (Configuration 70201)

Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Basket Only ¹	45.0 lb	114.1 in	5134 in*lb	38.5 in	1733 in*lb
	20.4 kg	2898 mm	59 122 mm*kg	978 mm	19 949 mm*kg
Cargo ² (MAX)	300 lb	114.1 in	34 230 in*lb	38.5 in	11 550 in*lb
	136 kg	2898 mm	393 413 mm*kg	978 mm	132 747 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

2. The following weight and balance is for the quick release step configuration, installed in accordance with drawing 80002.

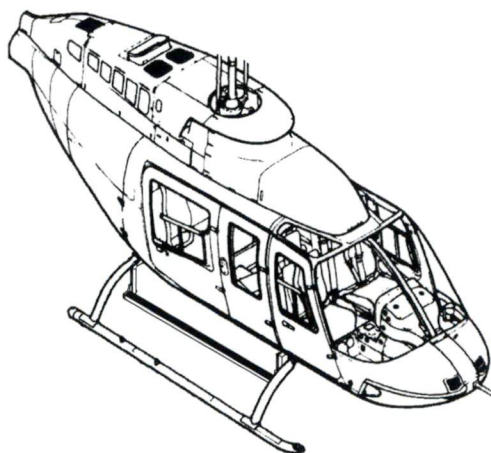


Figure 2 – Quick Release Step (Configuration 80002)

Quick Release Step Configuration

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Step Only ¹	8.2 lb	114.1 in	935.6 in*lb	29.3 in	239.9 in*lb
	3.7 kg	2898 mm	10 723 mm*kg	744 mm	2 754 mm*kg

Quick Release Step Configuration (Stowed Position)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Step Only ¹	8.2 lb	114.1 in	935.6 in*lb	23.7 in	194.3 in*lb
	3.7 kg	2898 mm	10 723 mm*kg	602 mm	2 227 mm*kg

¹ Weight and balance is for Step only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

3. The following weight and balance is for the large low mounted quick release cargo basket configuration, installed in accordance with drawing 94502.

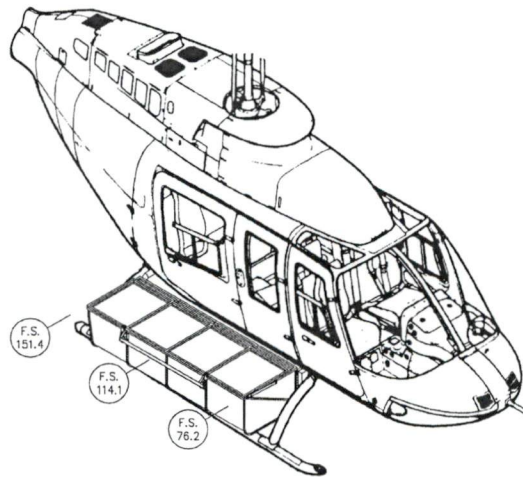


Figure 3 – Quick Release Cargo Basket (94502 Configuration)

Large Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Basket Only ¹	47.8 lb	114.1 in	5 454 in*lb	39.6 in	1 893 in*lb
	21.6 kg	2898 mm	62 684 mm*kg	1006 mm	21 755 mm*kg
Cargo ² (MAX)	300 lb	114.1 in	34 230 in*lb	39.6 in	11 880 in*lb
	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

4. The following weight and balance is for the large, long, low mounted quick release cargo basket configuration, installed in accordance with drawing 94602.

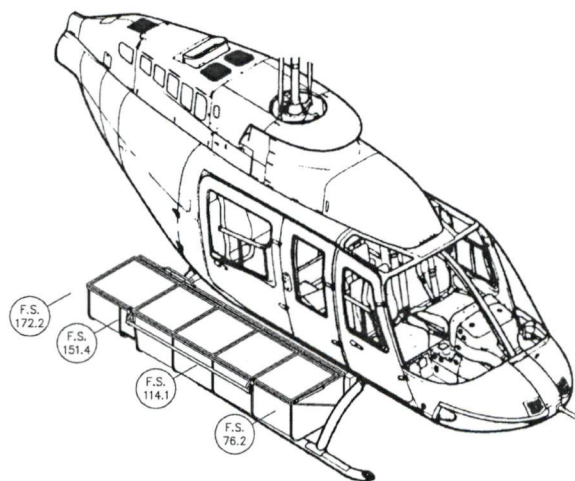


Figure 4 – Quick Release Cargo Basket (94602 Configuration)

Large Long Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Basket Only ¹	63.0 lb	125.0 in	7 875 in*lb	39.6 in	2 495 in*lb
	28.5 kg	3175 mm	90 509 mm*kg	1006 mm	28 673 mm*kg
Cargo ² (MAX)	300 lb	114.1 in	34 230 in*lb	39.6 in	11 880 in*lb
	136 kg	2898 mm	393 413 mm*kg	1006 mm	136 539 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The Quick Release Mounting Provisions are installed in accordance with drawing 70202. The Quick Release Basket is installed in accordance with drawing 70201, 94502, or 94602 as applicable. The Quick Release Step is installed in accordance with drawing 80002. Removal of the basket or step leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket or step and which weight and balance amendment is in effect is required.

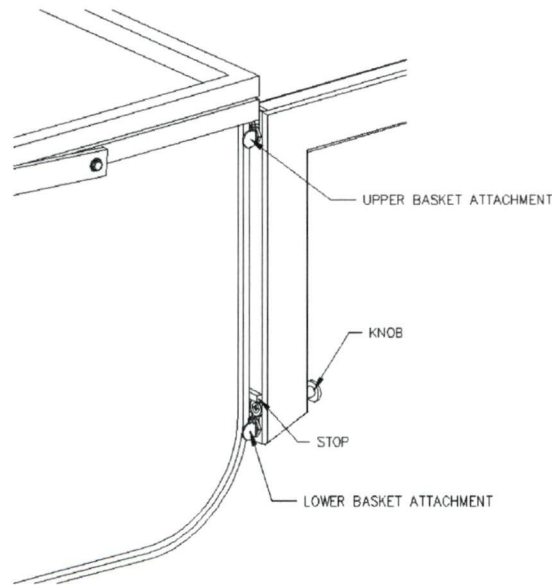


Figure 3 – Basket Attachment

1. Installation - Refer to Figure 3.
 1. Set basket upper attachment into slot on forward and aft beams.
 2. At forward end of basket, lift until lower attachment fitting hits stop over keyway. Push fitting into keyway and slide basket down until locked. Repeat for aft end.
2. Removal - Refer to Figure 3.
 1. Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in slot in beam. Repeat for aft end.

2. Lift basket until upper attachments are out of slots on beams and remove basket from helicopter.

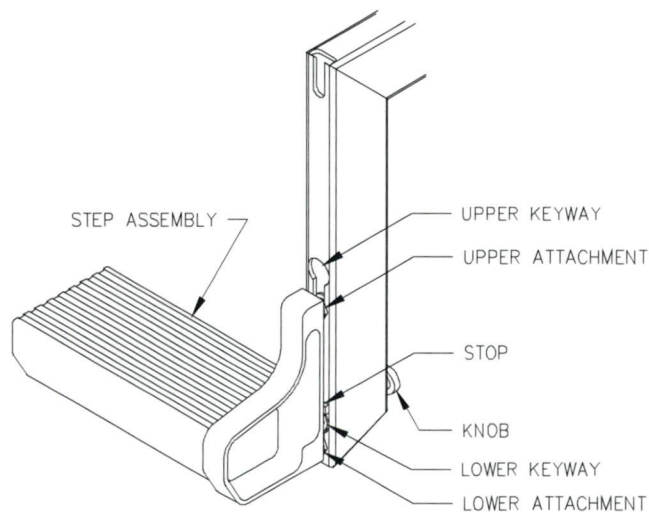


Figure 4 – Step Attachment

3. Step Installation – Refer to Figure 4.
 1. Set upper attachment into upper keyway on forward and aft beams.
 2. Lift step until lower attachment hits stop over keyway. Push fitting into keyway and slid down until locked.
4. Step Removal – Refer to Figure 4.
 1. Pull knob at bottom end of forward beam and lift step until the lower attachment fitting is free of keyway. Keep upper attachment in keyway in beam. Repeat for aft end.
 2. Lift step until upper attachments are out of keyways in beams and remove from helicopter.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 698.90

BELL 206L SERIES, 407 QUICK RELEASE CARGO BASKET

Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Quick Release Cargo Basket installed in accordance with the following AERO Design Ltd. Document Control Lists:

- DCL701, Revision 4 (Basket Assembly 69810-01)
- DCL702, Revision 3 (Basket Assembly 69810-01)
- DCL945-1, Revision 0 (Basket Assembly 94510-01)
- DCL946-1, Revision 0 (Basket Assembly 94610-01)

or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 2
Date: 25 October, 2011

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RECORD OF REVISIONS

Revision Number	Issue Date	Date Inserted	By
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1	9 November, 2006		
2	25 October, 2011		

LIST OF EFFECTIVE PAGES

List of Revisions

Revision 0 (Original Issue)

20 April, 2006

Revision 1

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List of Effective Pages

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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for rotorcraft embodying the Quick Release Cargo Basket as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Quick Release Cargo Basket. Requests for a copy may be made in writing to:

AERO Design Ltd.
2013 39th Avenue N.E.
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Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

0-5 GENERAL DESCRIPTION

The cargo basket installation is a metal mesh basket installed to the side of the helicopter on beams attached to landing gear fittings with attachment provisions incorporated. The quick release mechanism allows for the installation and removal of the basket quickly without tools, leaving the mounting beams in place.

The 70101/70102 configuration basket is 75.75" long, 22.5" wide, and 17" high. The 945 configuration basket is 75.75" long, 25.5" wide, and 18.25" high. The 946 configuration basket is 97" long, 25.5" wide, and 18.25" high. The baskets are made of a steel welded tubing structure, and lined with expanded steel mesh. The basket has a hinged lid with a self-locking handle.

The beams are steel tubing which attach to the landing gear fittings and stick out from the side of the helicopter. The quick release mechanism is built into the beams.

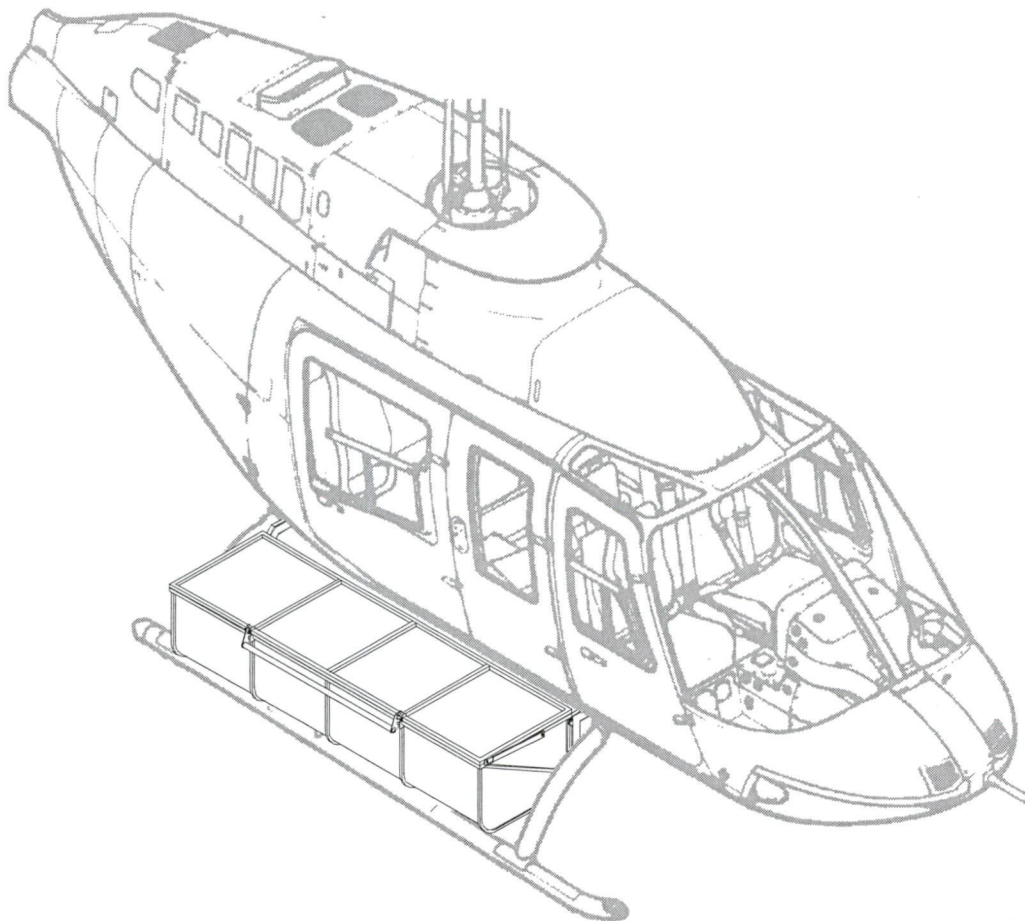


Figure 0.1 – Cargo Basket Installation
(70101/70201 Basket configuration)

0-6 STRUCTURAL PROVISIONS

The External Attachment Provisions are installed on the helicopter in accordance with drawing 49301 (Bell 206L Series) or 60602 (Bell 407). That installation is separate from the basket installation. The External Attachment Provisions are not included in this ICA.

The external attachment provisions consist of replacement landing gear fittings that incorporate a barrel nut for installing equipment. Each fitting is bolted to the lower fuselage and landing gear with the same fasteners as used for the original fittings, as shown in Figure 0.2.

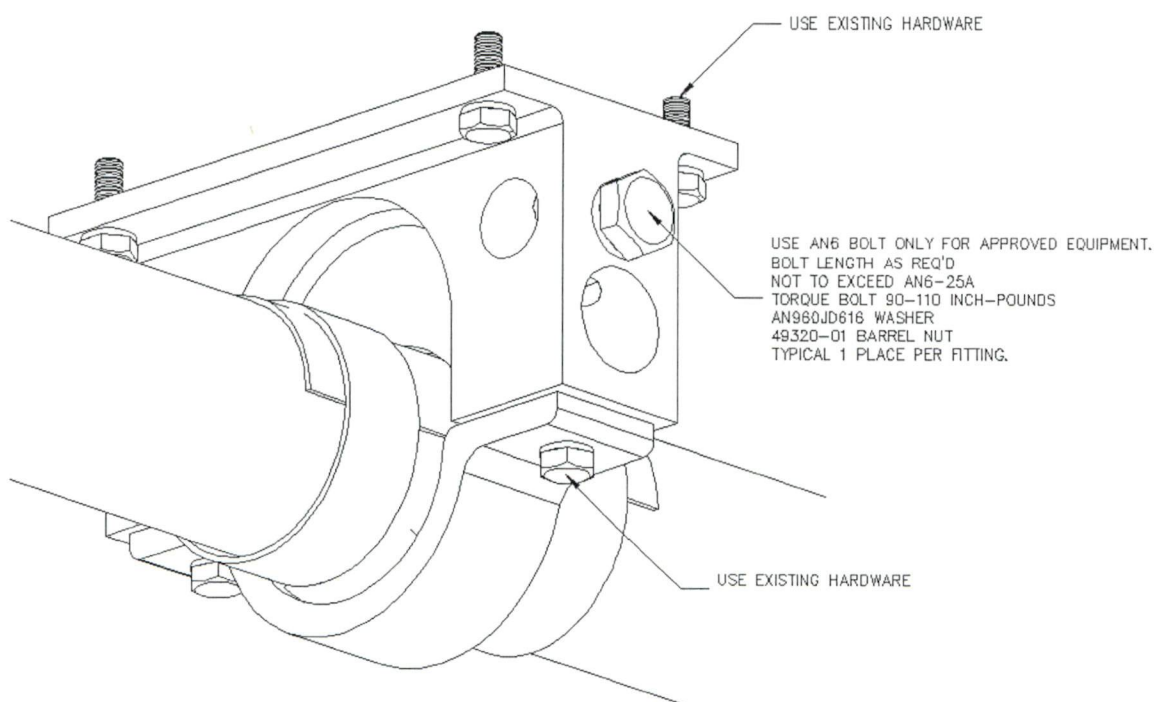


Figure 0.2 - Installation of External Attachment Provisions

CHAPTER 4 - AIRWORTHINESS LIMITATIONS

Transport Canada

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

FAA

The Airworthiness Limitations section is FAA approved and specifies maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

No additional airworthiness limitations have been imposed due the installation of the Quick Release Cargo Basket.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Quick Release Cargo Basket.

Daily Inspection

1. Inspection Area: Basket
 - a) Inspect the basket attachment to the beams for condition and security. Ensure quick release mechanism is completely extended, flush with the outboard surface of the beam. If pin does not completely extend, or spring tension is not sufficient to retain basket, replace spring, refer to section 25-6.
 - b) Inspect latching of the lid for correct operation. Replace handle brackets on basket if handle is not retained in latched position. Refer to section 25-5.

300 Hour or Annual Inspection

1. Inspection Area: Basket
 - a) Visually inspect tube-to-tube welds and mesh-to-tube welds for cracks, corrosion or other damage.
 - b) Visually inspect basket mesh for damage.
2. Inspection Area: Beams
 - a) Visually inspect beams attaching basket to the helicopter for cracks, corrosion or other damage.
 - b) Visually inspect lugs attaching the basket to the beams for security and damage.
 - c) Visually inspect bolts attaching beams to external attachment provisions for security and damage.
3. Inspection Area: Basket Brace (946 configuration only)
 - a) Visually inspect brace on basket in area spanning aft cross tube cutout for cracks, corrosion or other damage.
 - b) Visually inspect bolts attaching brace to basket for condition and security.

Special Inspections

Following a hard landing inspect the Quick Release Cargo Basket installation in accordance with the 300 hour or annual inspection listed above.

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Basket and Lid Tubing

Damage Limits:

- a) Deformation of any tubing between welded joints not exceeding 0.25 inches in any direction must be repaired in accordance with the instructions below.
- b) Corrosion not exceeding 0.015 inches deep to be dressed out to a smooth contour.
- c) Corrosion exceeding 0.015 inches deep to be repaired in accordance with the instructions below.

Repair Instructions:

- a) Repair Basket and Lid tubing in accordance with AC43.13-1B, Chapter 4, Section 5, Welding, paragraphs 4-80, 4-81 and 4-83 as required.

Basket and Lid are fabricated from the following materials:

Basket Hoops, Spine: 1/2" square steel tube
Lid, Basket Rim: 3/4" square steel tube

- b) Touch up with polyurethane paint as required following repairs.

2. Basket and Lid Mesh

Damage Limits:

- a) The basket mesh may be deformed or stretched without limit, so long as the welds attaching the mesh to the basket or lid are not compromised. If welds are compromised, repair in accordance with instructions below.
- b) Tears in the mesh not exceeding 4 cells in any direction may be repaired by patching. Maximum one repair patch per bay. See instructions below.

Repair Instructions:

- a) Repair mesh to tube welds in accordance with AC43.13-1B, Chapter 4, Section 5, Welding, as required.

Mesh: 3/4" 16 ga. (0.040") expanded steel mesh

b) Patch repair:

- a. Cut two aluminum sheets, minimum 0.040 inches thick, extending to at least 1 complete cell outside of torn area. Drill #9 holes in the corners of the sheet, located to clear the mesh when installed.
- b. Attach patches, one inside and one outside, to the mesh with AN3 Bolts, AN970-3 Washers, and MS21044N3 Nuts.

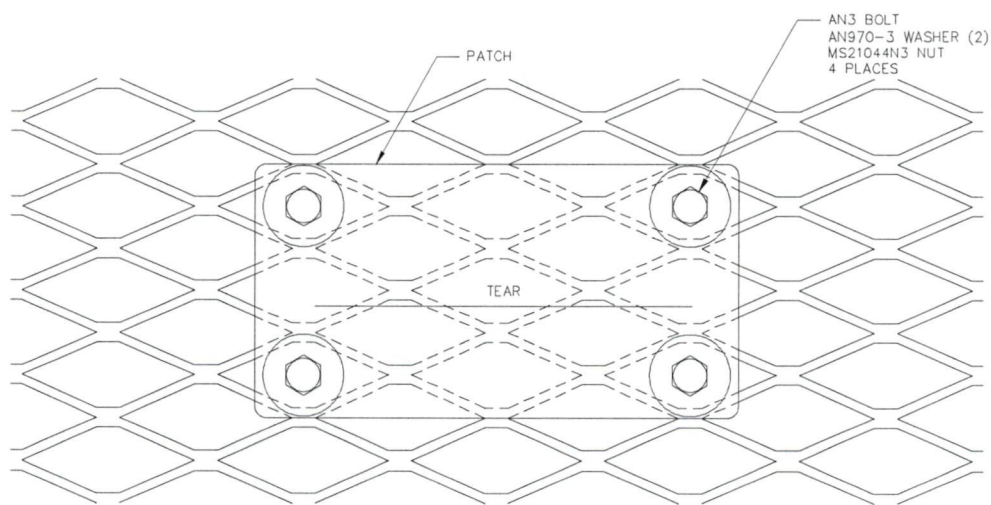


Figure 5.1 – Patch Repair

c) Touch up with polyurethane paint as required following repairs.

3. Beams

DO NOT REPAIR DAMAGE TO BEAMS IF BEYOND THE LIMITS BELOW.

- a) Nicks and/or gouges on the top or bottom face up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour.
- b) Nicks and/or gouges on the side faces up to 0.060" deep and 0.125" wide may be dressed out to a smooth contour.
- c) Maximum depth for slot is shown in Figure 5.2. Attempt to insert 27/64 drill shank into bottom end of slot. If drill can be inserted, slot is worn beyond limit.

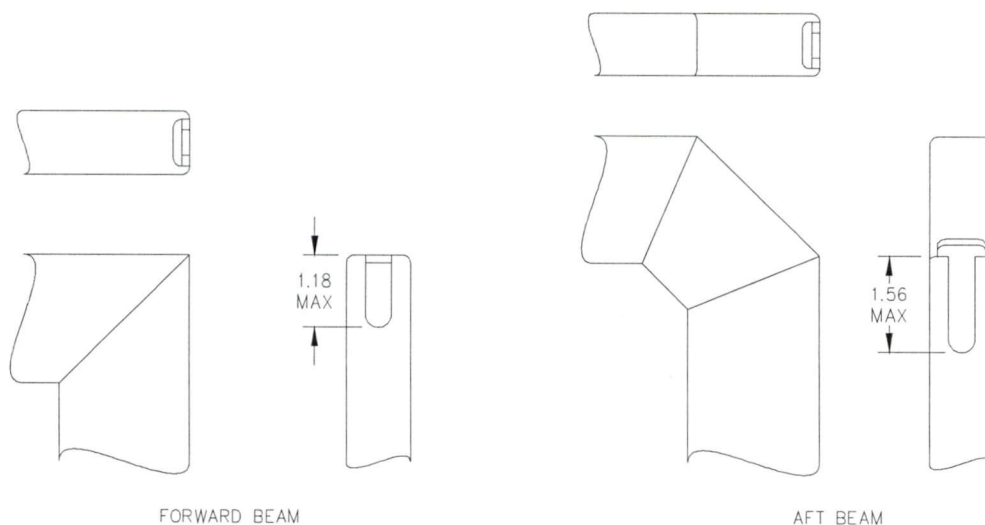


Figure 5.2 – Beam Slot Dimensions

- d) Cracks at any location on the beam are not acceptable.
- e) Touch up with polyurethane paint as required following repairs.

4. Basket Brace (946 Basket Configuration only)

Damage Limits

- a) Nicks and/or gouges on any surface up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour.
- b) Cracks on any surface are not acceptable.
- c) Corrosion on any surface up to 0.015 deep, not exceeding 1 square inch may be dressed out to a smooth contour. Maximum 3 locations.

Repair Instructions

Replace brace if damage exceeds limits above. See section 25-7.

5-3 PROTECTIVE TREATMENT INFORMATION

1. Beams

The beams are supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint.

2. Cargo Basket

The cargo basket is supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint.

CHAPTER 11 – MARKINGS AND PLACARDS

The following markings and placards are used with the Quick Release Cargo Basket Installation in the locations noted:

- a) Located on basket lid:



CHAPTER 25 – EQUIPMENT AND FURNISHINGS**SECTION 50 – CARGO COMPARTMENTS****25-1 BEAMS REMOVAL**

Refer to Figure 25.1.

1. Remove Cargo Basket. Refer to section 25-3.
2. Remove two AN6-20A Bolt and AN960-616 Washer from 69830-01 Forward Beam. Remove Forward Beam.
3. Remove two AN6-20A Bolt and AN960-616 Washer from 69831-01 Aft Beam. Remove Aft Beam.

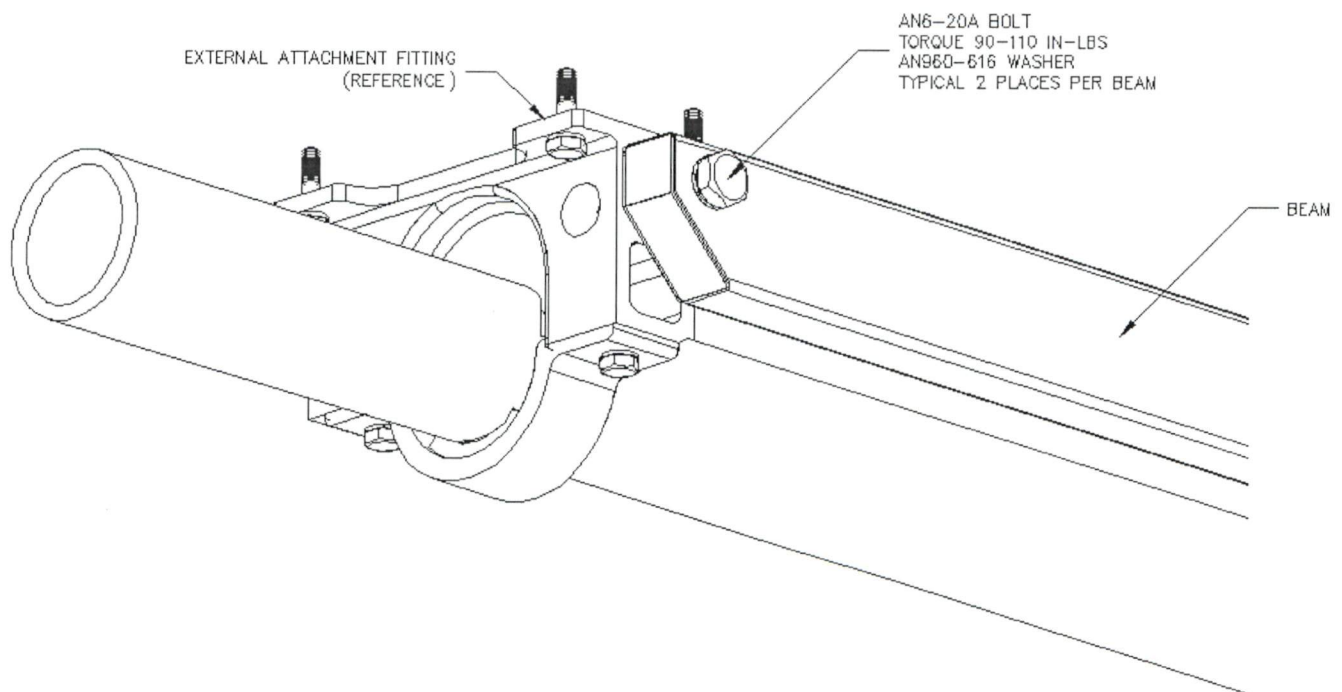


Figure 25.1 – Beams

25-2 BEAMS INSTALLATION

Refer to Figure 25.1.

1. External Attachment Provisions installed in accordance with drawing 49301 (Bell 206L Series) or 60602 (Bell 407) are required prior to installing the Beams.
2. Locate 69830-01 Forward Beam on aft side of Forward Landing Gear Fittings. Install two AN6-20A Bolt and AN960-616 Washer into Barrel Nuts in Fittings. Torque AN6 bolts to 90-110 in-lbs.

3. Locate 69831-01 Aft Beam on forward side of Aft Landing Gear Fittings. Install two AN6-20A Bolt and AN960-616 Washer into Barrel Nuts in Fittings. Torque AN6 bolts to 90-110 in-lbs.

25-3 BASKET REMOVAL

Refer to Figure 25.2.

1. Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in slot on beam.
2. Pull knob at bottom end of aft beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in slot on beam.
3. Lift basket until upper attachments are out of slots on beams and remove basket from helicopter.

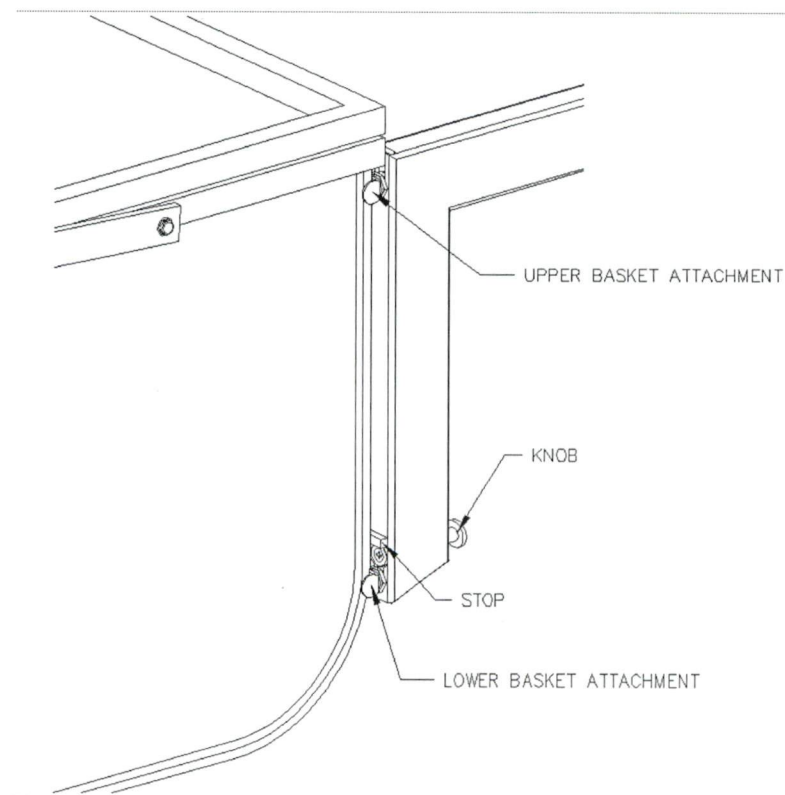


Figure 25.2 – Basket Attachment

25-4 BASKET INSTALLATION

Refer to Figure 25.2.

1. Set basket upper attachment into slot at top of forward and aft beams.
2. At forward end of basket, lift basket until lower attachment fitting hits stop. Push fitting into keyway and slide basket down until locked.
3. Repeat step 2 for aft end.

25-5 HANDLE BRACKET REPLACEMENT

1. Remove two (2) AN3-11A Bolts, AN960-10 Washers and MS21044N3 Nuts from each Handle Bracket (84267-01). Remove handle brackets from basket hoops.

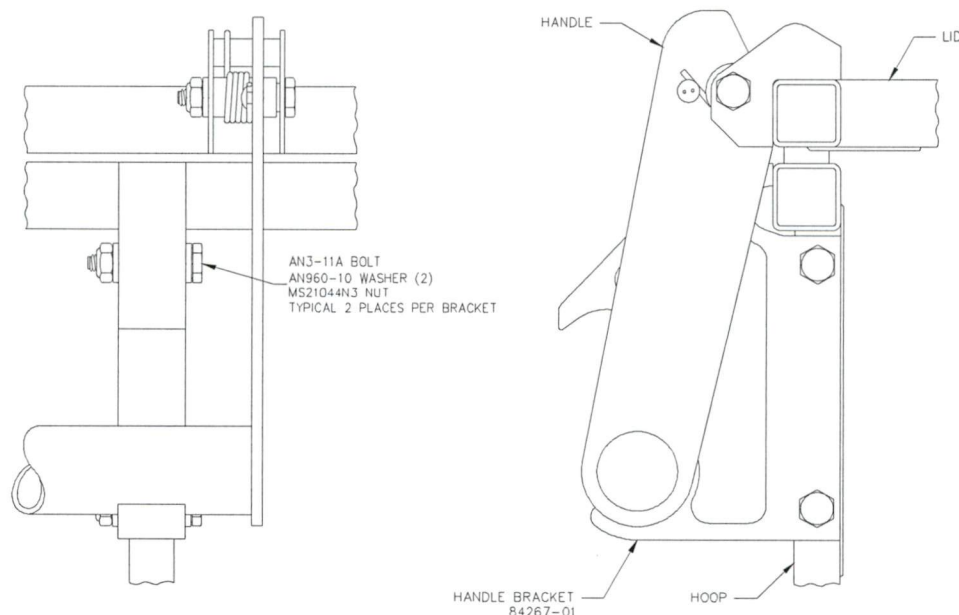


Figure 25.3 – Handle Bracket Parts

2. Slide two (2) replacement Handle Brackets (84267-01) onto basket hoops. Align Handle Bracket to bushings in hoop. Insert two (2) AN3-11A Bolts with AN960-10 Washers through Handle Bracket and bushing. Install AN960-10 Washer and MS21044N3 Nut on each bolt. Torque nuts to 20-25 in-lbs.

25-6 QUICK RELEASE PIN SPRING REPLACEMENT

1. Remove basket from mounting beams, refer to section 25-3.
2. At lower attachment keyway on aft beam, remove MS21044C3 Nut from #10-32 stainless steel countersunk screw and remove 69830-13 Knob, 69830-12 Stop, and 69830-23 Spring. Discard defective Spring.
3. Place 69830-12 Stop on #10-32 stainless steel countersunk screw. Slide replacement 69830-23 Spring onto Stop. Insert screw/Stop/Spring into guide in lower keyway of aft beam. Install 69830-13 Knob and MS21044C3 Nut on inboard side of beam. Torque nut to 20-25 in-lbs.

25-7 BRACE REPLACEMENT

Brace is only installed on Cargo Basket part number 94610-01.

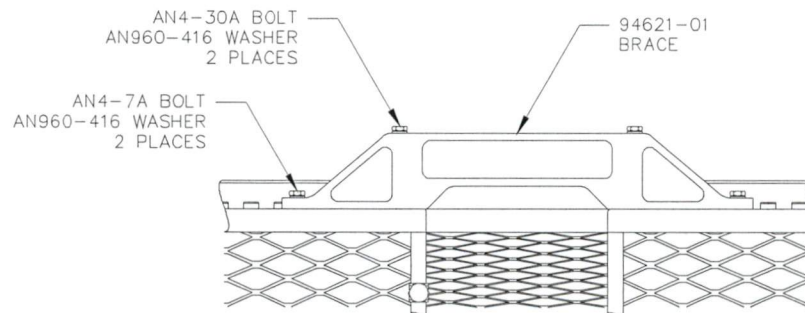


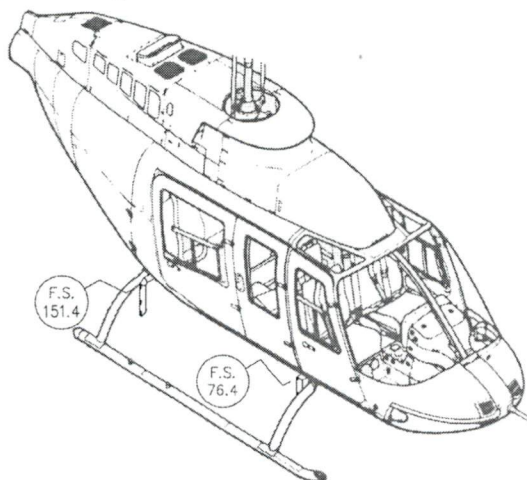
Figure 25.4 – Brace Replacement

1. Remove two (2) AN4-15A Bolts, AN960-416 Washers, and MS21042L4 Nuts securing 94621-01 Brace to basket. Remove Brace.
2. Locate replacement 94621-01 Brace on basket rim. Insert two (2) AN4-15A bolts with AN960-416 Washers into holes in Brace through bushings in basket rim.
3. Install AN960-416 Washers and MS21042L4 Nuts on bolts. Torque nuts to 50-70 inch-lbs.

25-8 WEIGHT AND BALANCE

Multiple weight and balance configurations are required as the basket may be installed or removed in the field. The first is the mounting provisions only. The second is the configuration with the basket installed.

1. Quick Release Mounting Provisions

Figure 25.5 – Quick Release Mounting Provisions
70102 / 70202 Configuration

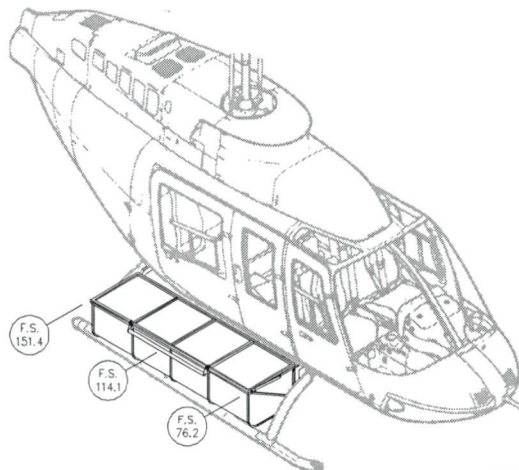
Bell 206L Series

Part #	Standard Units Description	Weight (lbs)	Longitudinal		Lateral	
			Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
49301-01	External Attachment Provisions	6.1	118.9	727.9	0.0	0.0
69830-01	Forward Beam	10.1	76.4	771.6	10.9	110.1
69831-01	Aft Beam	9.8	151.4	1483.7	12.6	123.5
70202-01	Quick Release Mounting Provisions Installation (Total)	26.0	114.6	2981.3	15.4	400.8
Metric Units		(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
49301-01	External Attachment Provisions	2.8	3020.1	8382.2	0.0	0.0
69830-01	Forward Beam	4.6	1940.6	8888.7	492.8	2257.1
69831-01	Aft Beam	4.4	3840.5	17068.8	530.9	2359.4
70202-01	Quick Release Mounting Provisions Installation (Total)	11.8	2910.0	34339.7	391.2	4616.5

Bell 407

Part #	Standard Units Description	Weight (lbs)	Longitudinal		Lateral	
			Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
60602-01	External Attachment Provisions	3.2	85.5	272.0	0.0	0.0
69830-01	Forward Beam	10.1	76.4	771.6	10.9	110.1
69831-01	Aft Beam	9.8	151.4	1483.7	12.6	123.5
70102-01	Quick Release Mounting Provisions Installation (Total)	23.1	109.4	2525.4	17.4	400.8
Metric Units		(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
60602-01	External Attachment Provisions	1.4	2171.7	3132.0	0.0	0.0
69830-01	Forward Beam	4.6	1940.6	8888.7	492.8	2257.1
69831-01	Aft Beam	4.4	3840.5	17068.8	530.9	2359.4
70102-01	Quick Release Mounting Provisions Installation (Total)	10.5	2779.1	29089.5	441.0	4616.5

2. Low Mounted Quick Release Cargo Basket Installation

Figure 25.4 – Cargo Basket Installation
70101 / 70201 Configuration

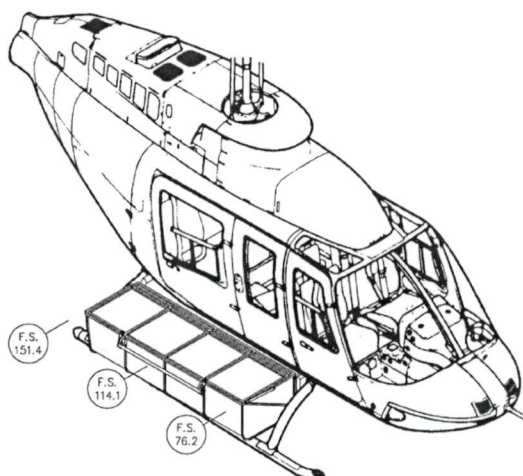
Bell 206L Series

Part #	Standard Units Description	Weight (lbs)	Longitudinal		Lateral	
			Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
69810-01	Cargo Basket	45.0	114.1	5134.5	38.5	1732.5
70201-01	Quick Release Cargo Basket Installation (Total)	71.0	114.3	8115.8	30.0	2133.3
Metric Units		(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
69810-01	Cargo Basket	20.4	2898.1	59145.7	977.9	19957.1
70201-01	Quick Release Cargo Basket Installation (Total)	32.2	2902.5	93485.5	763.0	24573.6

Bell 407

Part #	Standard Units Description	Weight (lbs)	Longitudinal		Lateral	
			Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
69810-01	Cargo Basket	45.0	114.1	5134.5	38.5	1732.5
70101-01	Quick Release Cargo Basket Installation (Total)	68.1	112.5	7659.9	31.3	2133.3
Metric Units		(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
69810-01	Cargo Basket	20.4	2898.1	59145.7	977.9	19957.1
70101-01	Quick Release Cargo Basket Installation (Total)	30.9	2857.8	88235.2	795.9	24573.6

3. Large, Low Mounted Quick Release Cargo Basket Installation

Figure 25.3 – Cargo Basket Installation
94501 / 94502 Configuration

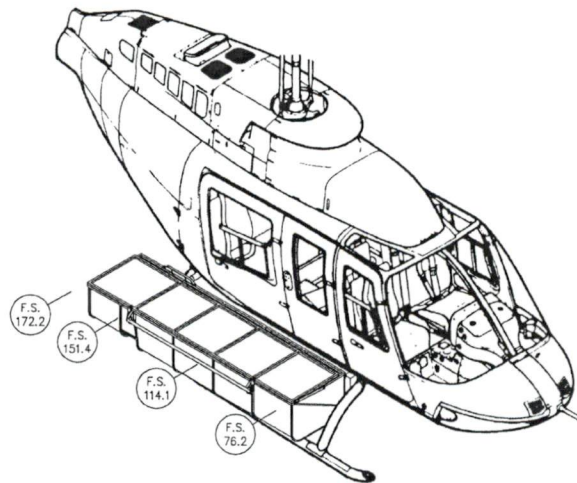
Bell 206L Series

Part #	Standard Units Description	Weight (lbs)	Longitudinal		Lateral	
			Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
94510-01	Cargo Basket	47.8	114.1	5454.0	39.6	1892.9
94502-01	Quick Release Cargo Basket Installation (Total)	73.8	114.3	8435.3	31.1	2293.6
	Metric Units	(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
94510-01	Cargo Basket	21.7	2898.1	62825.9	1005.8	21804.6
94502-01	Quick Release Cargo Basket Installation (Total)	33.5	2902.3	97165.6	789.2	26421.1

Bell 407

Part #	Standard Units Description	Weight (lbs)	Longitudinal		Lateral	
			Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
94510-01	Cargo Basket	47.8	114.1	5454.0	39.6	1892.9
94501-01	Quick Release Cargo Basket Installation (Total)	70.9	112.6	7979.4	32.4	2293.6
	Metric Units	(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
94510-01	Cargo Basket	21.7	2898.1	62825.9	1005.8	21804.6
94501-01	Quick Release Cargo Basket Installation (Total)	32.1	2859.4	91915.4	821.9	26421.1

4. Large, Long, Low Mounted Quick Release Cargo Basket Installation

Figure 25.4 – Cargo Basket Installation
94601 / 94602 Configuration

Bell 206L Series

Part #	Standard Units Description	Weight (lbs)	Longitudinal		Lateral	
			Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
94610-01	Cargo Basket	63.0	125.0	7875.0	39.6	2494.8
94602-01	Quick Release Cargo Basket Installation (Total)	89.0	122.0	10856.3	32.5	2895.6
Metric Units		(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
94610-01	Cargo Basket	28.6	3175.0	90714.3	1005.8	28738.3
94602-01	Quick Release Cargo Basket Installation (Total)	40.4	3097.6	125054.0	826.2	33354.8

Bell 407

Part #	Standard Units Description	Weight (lbs)	Longitudinal		Lateral	
			Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
94610-01	Cargo Basket	63.0	125.0	7875.0	39.6	2494.8
94601-01	Quick Release Cargo Basket Installation (Total)	86.1	120.8	10400.4	33.6	2895.6
Metric Units		(kg)	(mm)	(mm-kg)	(mm)	(mm-kg)
94610-01	Cargo Basket	28.6	3175.0	90714.3	1005.8	28738.3
94601-01	Quick Release Cargo Basket Installation (Total)	39.0	3068.9	119803.8	854.4	33354.8

Cargo Basket Options – Standard Units

Part #	Description	Weight (lbs)	Longitudinal		Lateral	
			Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
70404-01	Front End Cutout	0.6	76.2	45.7	38.5	23.1
70405-01	Lid Step (70101/70201 config.)	5.2	114.1	593.3	38.5	200.2
70405-01	Lid Step (94501/94502 config.)	5.2	114.1	593.3	41.7	216.8
70405-01	Lid Step (94601/94602 config.)	6.2	125.0	775.0	41.7	258.5
70408-01	Hangar Wheel (Forward End)	0.8	78.6	62.9	38.5	30.8

Cargo Basket Options – Metric Units

Part #	Description	Weight (lbs)	Longitudinal		Lateral	
			Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
70404-01	Front End Cutout	0.3	1935.5	522.6	977.9	264.0
70405-01	Lid Step (70101/70201 config.)	2.4	2898.1	6839.6	977.9	2307.8
70405-01	Lid Step (94501/94502 config.)	2.4	2898.1	6839.6	1059.2	2499.7
70405-01	Lid Step (94601/94602 config.)	2.8	3175.0	8921.8	1059.2	2979.3
70408-01	Hangar Wheel (Forward End)	0.4	1996.4	718.7	977.9	352.0

25-9 STRUCTURAL FASTENER DATA

Refer to Bell Standard Practices Manual BHT-ALL-SPM for torque values not listed in this ICA.

AERO Design Ltd.

SERVICE INSTRUCTIONS

SI 698.91

BELL 407

MODIFICATION TO SLIDING DOOR INSTALLATION TO ACCOMMODATE QUICK RELEASE MOUNTING PROVISIONS

Prepared by: Jeff Clarke

Revision 0, 19 September, 2008

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1.0 INTRODUCTION

These instructions apply to Bell 407 helicopters that are fitted with the Aeronautical Accessories Sliding Door Installation per Canadian STC SH96-66. Location of the Sliding Door bottom rail is highly dependent on the installer, and may interfere with Quick Release Provisions Installations supplied by Aero Design Ltd (70102-01 Low Mounted; 76601-01 High Mounted).

These instructions provide for the modification to the bottom rail of the Sliding Door Installation in order to install the Quick Release Cargo Basket Installation.

2.0 REFERENCE

Aero Design Ltd. Drawing 70102 (Low Mounted Provisions) or 76601 (High Mounted Basket)

Aero Design Ltd. Drawing 70001 (External Attachment Provisions Installation)

3.0 ACCOMPLISHMENT INSTRUCTIONS

1. Install External Attachment Provisions in accordance with drawing 70001.
2. Locate aft beam on aft attachment provisions. Thread AN6 bolt into one provision if possible.

Note: If both AN6-20A bolts can be installed without the aft beam interfering with the sliding door rail no modification to the sliding door rail is required. The beam may need to be slid as far right as possible on provisions.

3. Mark bottom sliding door rail at the forward edge of the beam.
4. Remove the door stop hardware from the aft end of the sliding door rail.

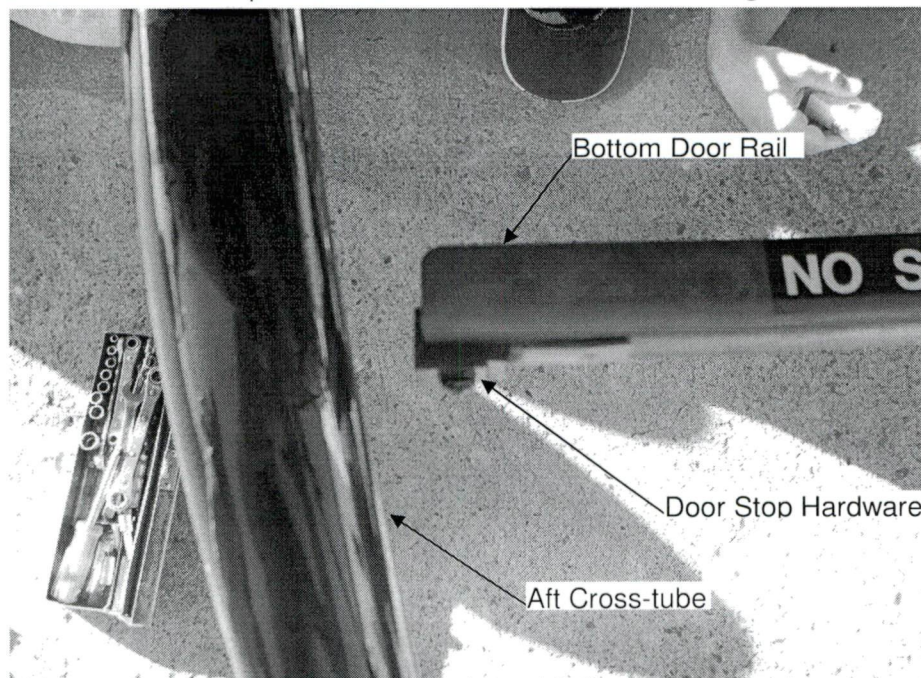


Figure 3.0.1 – Door Stop Hardware

5. Cut sliding door rail 0.5" forward of the mark made in step 3. Remove "NO STEP" placard if necessary.
6. Drill #9 (0.196) in aft end of sliding door rail to install stop hardware removed in step 4. Use door stop bracket to determine location.
7. Re-install stop hardware in new hole at the end of the sliding door rail. Install "NO STEP" placard (Aeronautical Accessories part number 099-094-114 or equivalent) if removed in step 5.

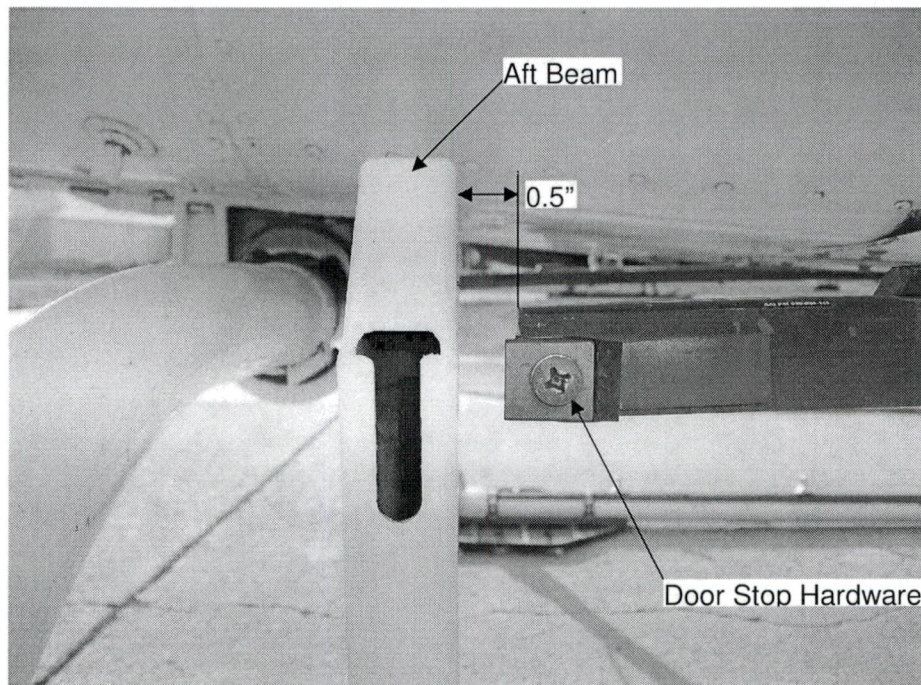




Figure 3.0.2 – Completed Modification
(Low Mounted Quick Release Beam shown)

8. Install Quick Release Mounting Provisions in accordance with drawing 70102 or 76601 as applicable.


DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
69810	Cargo Basket Assembly	3
69811	Basket Body Assembly	3
69812	Basket Lid Assembly	3
69821	Basket Components - End Hoop	1
69822	Basket Components - Aft Hoop	1
69823	Basket Components - Lugs	1
69827	Basket Components - Placard	2
49210	Basket Components - Hoops	1
49215	Basket Components - Spacer	0
49216	Basket Components - Spacer	0
84255	Handle Assembly	1
84261	Handle Bar Assembly	1
84262	Handle Bracket Assembly	1
84265	Handle Lever	1
84267	Handle Bracket	0
84272	Bushing	1
36273	Lid Bracket	1
36274	Bushing	2
36275	Bushing	3
36277	Handle Bar	0
36278	Spring	1
36280	Brace	2
ENGINEERING DOCUMENTS		
ER698.01	Engineering Report	0
ER698.06	Engineering Report	0
APPROVAL:		
 <p>Transport Canada E. BURGOIN DAR 290M</p> <p>APPROVED</p> <p>By <i>[Signature]</i></p> <p>Appr'l No. <u>SH00-48</u></p> <p>Appr'l Date <u>08 DEC 2000</u></p> <p>Issue No. <u>9</u></p> <p>Issue Date <u>30 NOV 2011</u></p>		<p>ORIGINAL DATE: 3 May, 2006</p> <p>REVISION DATE: 27 October, 2011</p>
<p>SHEET 1 OF 1</p>		<p>AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333</p>
<p>Quick Release Cargo Basket Assembly</p>		<p>Rev.</p>
<p>DCL698-1</p>		<p>2</p>


DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
69830	Forward Beam Fabrication	3
69831	Aft Beam Fabrication	3
ENGINEERING DOCUMENTS		
ER698.02	Engineering Report	0
TP698.03	Test Plan	0
ER698.04	Engineering Report	0
ER698.06	Engineering Report	0
APPROVAL:		
 <p>Transport Canada E. BURGOIN DAR 290M</p> <p>APPROVED</p> <p>By <i>[Signature]</i></p> <p>Appr'l No. <u>5H00-48</u></p> <p>Appr'l Date <u>08 DEC 2000</u></p> <p>Issue No. <u>9</u></p> <p>Issue Date <u>30 Nov 2011</u></p>		<p>ORIGINAL DATE: 3 May, 2006</p> <p>REVISION DATE: 27 October, 2011</p> <p>AERO DESIGN LTD. 2013 – 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333</p>
SHEET 1 OF 1		Quick Release Mounting Beams
DCL698-2		Rev. 4

DOCUMENT CONTROL LIST


DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
94510	Cargo Basket Assembly	0
94511	Basket Body Assembly	0
69812	Basket Lid Assembly	3
94520	Basket Components - Hoop	0
94521	Basket Components - Forward Hoop	0
94522	Basket Components - Aft Hoop	0
94527	Basket Components - Placard	0
69823	Basket Components - Lugs	1
49215	Basket Components - Spacer	0
49216	Basket Components - Spacer	0
84255	Handle Assembly	1
84261	Handle Bar Assembly	1
84262	Handle Bracket Assembly	1
84265	Handle Lever	1
84267	Handle Bracket	0
84272	Bushing	0
36273	Lid Bracket	1
36274	Bushing	2
36275	Bushing	3
36277	Handle Bar	0
36278	Spring	2
36280	Brace	2
ENGINEERING DOCUMENTS		
ER945.01	Engineering Report	0
FTP945.03	Flight Test Plan and Report	1
ER842.01	Engineering Report	0
APPROVAL:		
 Transport Canada E. BURGOIN DAR 200M APPROVED By: [Signature] Appr. No. SA00-48 Appr. Date 08 DEC 2000 Issue No. 9 Issue Date 30 NOV 2011	ORIGINAL DATE: 27 October 2011	AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 www.aerodesign.ca
	REVISION DATE:	
	SHEET 1 OF 1	Bell 206L Series, 407 Quick Release Cargo Basket Fabrication
DCL945-10		Rev. 0

DOCUMENT CONTROL LIST


DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
94610	Cargo Basket Assembly	0
94611	Basket Body Assembly	0
94612	Basket Lid Assembly	0
94620	Basket Components - Hoop	0
94621	Basket Components - Brace	0
94627	Basket Components - Placard	0
94520	Basket Components - Hoop	0
94521	Basket Components - Forward Hoop	0
94522	Basket Components - Aft Hoop	0
69823	Basket Components - Lugs	1
49215	Basket Components - Spacer	0
49216	Basket Components - Spacer	0
84255	Handle Assembly	1
84261	Handle Bar Assembly	1
84262	Handle Bracket Assembly	1
84265	Handle Lever	1
84267	Handle Bracket	0
84272	Bushing	1
36273	Lid Bracket	1
36274	Bushing	2
36275	Bushing	3
36277	Handle Bar	0
36278	Spring	1
36280	Brace	2
ENGINEERING DOCUMENTS		
ER946.01	Engineering Report	0
FTP945.03	Flight Test Plan and Report	1
ER842.01	Engineering Report	0
APPROVAL:		
 <p>Transport Canada E. BURGOIN DAR 290M</p> <p>APPROVED</p> <p>By: <i>[Signature]</i></p> <p>App'l No. <u>9400-48</u></p> <p>App'l Date <u>08 DEC 2000</u></p> <p>Issue No. <u>9</u></p> <p>Issue Date <u>30 Nov 2011</u></p>		<p>ORIGINAL DATE: 27 October 2011</p> <p>REVISION DATE:</p>
<p>SHEET 1 OF 1</p>		<p>AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 www.aerodesign.ca</p>
<p>Bell 206L Series, 407 Quick Release Cargo Basket Fabrication</p>		<p>Rev.</p>
<p>DCL946-10</p>		<p>0</p>

High Fixed
Basket

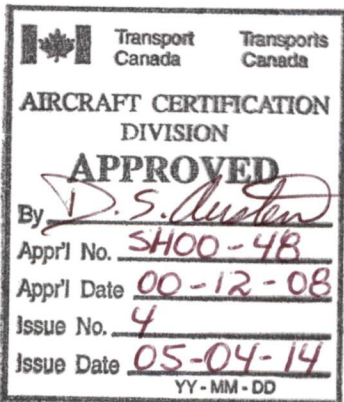
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DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
60603	Cargo Basket Installation	0
60602	External Attachment Provisions Installation (Bell 407)	0
FMS606.01	Flight Manual Supplement	1
MI606.01	Maintenance Instructions	2
FABRICATION DOCUMENTS		
60620	Block Fabrication	0
60621	Forward Fitting Fabrication	0
60622	Barrel Nut Fabrication	0
60624	Barrel Nut Fabrication	0
60630	Cargo Basket Assembly	0
60631	Cargo Basket Body	0
60632	Cargo Basket Lid	0
60640	Basket Components – Rim	0
60641	Basket Components – End Hoop Assembly	0
60642	Basket Components – Attachment Hoop Assembly	0
60643	Basket Components – Spine	0
60644	Basket Components – Lug	0
60646	Basket Components – Mounting Plate	0
60647	Basket Components – Bushing	0
60648	Basket Components – Hoop	0
60649	Basket Components – Step Brace	0
49212	Basket Components – Rim	0
49213	Basket Components – Lid Brace	1
49215	Basket Components – Lug	0
49216	Basket Components – Lug	0
49218	Placard	1
49221	Support Beams	2
49222	Support Beams (Steel)	1
APPROVAL:		
 <div> <div> Transport Canada E. BURGAIN DAR 290M APPROVED By <i>[Signature]</i> App'l No. <u>SH00-48</u> App'l Date <u>8 DECEMBER 2000</u> Issue No. <u>5</u> Issue Date <u>9 JUNE 2006</u> </div> <div> THIS DCL APPROVED 13 DECEMBER 2006 </div> </div>		
ORIGINAL DATE: 01 February, 2005	AERO DESIGN LTD. 2013 – 39 th Ave NE Calgary, Alberta T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333	
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SHEET 1 OF 2	Bell 407 High Side-Mounted Cargo Basket Installation	
DCL606-1		Rev. 1

DOCUMENT CONTROL LIST

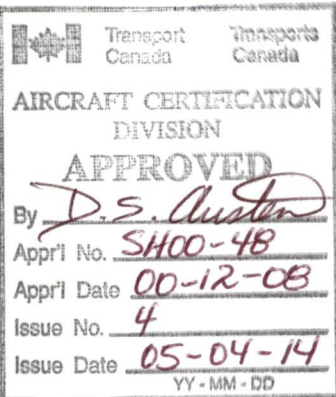
DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS	(CONTINUED)	
36255	Handle Assembly	1
36261	Handle Bar Assembly	1
36262	Handle Bracket Assembly	1
36271	Handle Lever	0
36272	Basket Bracket	0
36273	Lid Bracket	0
36274	Bushing	0
36275	Bushing	1
36276	Spring Hook	0
36277	Handle Bar	0
36278	Spring	1
36280, Sheet 1	Brace	2
36280, Sheet 2	Brace	2
ENGINEERING DOCUMENTS		
ER606.01	Engineering Report – Basket Installation	0
ER606.02	Engineering Report – Load Test	0
ER606.03	Engineering Report – High Mounted Basket	0
TR606.04	Test Report – Beam Load Test	0
TR606.05	Test Report – Basket Assembly Load Test	0
ER492.01	Engineering Report – Basket Installation	0
ER492.02	Engineering Report – Basket Load Tests	0
ER493.01	Engineering Report – External Attachment Prov.	1
ER493.03	Test Report – Load Test External Attachment Prov.	0
ER362.02	Test Report – Basket Assembly Load Test	2
ER492.03	Engineering Report – Steel Beams	0
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 THIS DCL APPROVED 13 DECEMBER 2006	<div> SHEET 2 OF 2 </div>	<div> Bell 407 High Side-Mounted Cargo Basket Installation </div>
	DCL606-1	Rev. 1

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
60603	Cargo Basket Installation	0
60602	External Attachment Provisions Installation (Bell 407)	0
FMS606.01	Flight Manual Supplement	1
MI606.01	Maintenance Instructions	2
FABRICATION DOCUMENTS		
60620	Block Fabrication	0
60621	Forward Fitting Fabrication	0
60622	Barrel Nut Fabrication	0
60624	Barrel Nut Fabrication	0
60630	Cargo Basket Assembly	0
60631	Cargo Basket Body	0
60632	Cargo Basket Lid	0
60640	Basket Components – Rim	0
60641	Basket Components – End Hoop Assembly	0
60642	Basket Components – Attachment Hoop Assembly	0
60643	Basket Components – Spine	0
60644	Basket Components – Lug	0
60646	Basket Components – Mounting Plate	0
60647	Basket Components – Bushing	0
60648	Basket Components – Hoop	0
60649	Basket Components – Step Brace	0
49212	Basket Components – Rim	0
49213	Basket Components – Lid Brace	1
49215	Basket Components – Lug	0
49216	Basket Components – Lug	0
49218	Placard	1
49221	Support Beams	2
APPROVAL:		
	ORIGINAL DATE: 01 February, 2005	AERO DESIGN LTD. 2013 – 39 th Ave NE Calgary, Alberta T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	REVISION DATE:	
	SHEET 1 OF 2	Bell 407 High Side-Mounted Cargo Basket Installation
DCL606-1		Rev. 0

OLD

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS	(CONTINUED)	
36255	Handle Assembly	1
36261	Handle Bar Assembly	1
36262	Handle Bracket Assembly	1
36271	Handle Lever	0
36272	Basket Bracket	0
36273	Lid Bracket	0
36274	Bushing	0
36275	Bushing	1
36276	Spring Hook	0
36277	Handle Bar	0
36278	Spring	1
36280, Sheet 1	Brace	2
36280, Sheet 2	Brace	2
 ENGINEERING DOCUMENTS		
ER606.01	Engineering Report – Basket Installation	0
ER606.02	Engineering Report – Load Test	0
ER606.03	Engineering Report – High Mounted Basket	0
TR606.04	Test Report – Beam Load Test	0
TR606.05	Test Report – Basket Assembly Load Test	0
ER492.01	Engineering Report – Basket Installation	0
ER492.02	Engineering Report – Basket Load Tests	0
ER493.01	Engineering Report – External Attachment Prov.	1
ER493.03	Test Report – Load Test External Attachment Prov.	0
ER362.02	Test Report – Basket Assembly Load Test	2
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 <p>APPROVED By <u>D.S. Austin</u> App'l No. <u>SH00-48</u> App'l Date <u>00-12-08</u> Issue No. <u>4</u> Issue Date <u>05-04-14</u> YY-MM-DD</p>	SHEET 2 OF 2	<p>Bell 407 High Side-Mounted Cargo Basket Installation</p>
	<p>DCL606-1</p>	

BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT
for the
INSTALLATION of the AERO DESIGN CARGO BASKET

Supplemental Type Certificate No. SH00-48

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with the Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



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I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Cargo Basket is 200 Lb. (90.9 kg).
2. Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
3. Maximum lateral or rearward speed limited to 25 KIAS.
4. Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
5. V_{NE} is 140 KIAS except when the V_{NE} of the basic rotorcraft is more restrictive, in which case the lower V_{NE} applies.
6. High Basket configuration – No occupants in the passenger cabin unless helicopter is equipped with approved push out emergency windows or sliding door on the basket side of the helicopter.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 200 fpm.

Cruise speeds are reduced by approximately 10 kts. (11 mph).

V WEIGHT AND BALANCE

1. The following weight and balance are for the low mounted cargo basket configuration, installed in accordance with drawing 60601.

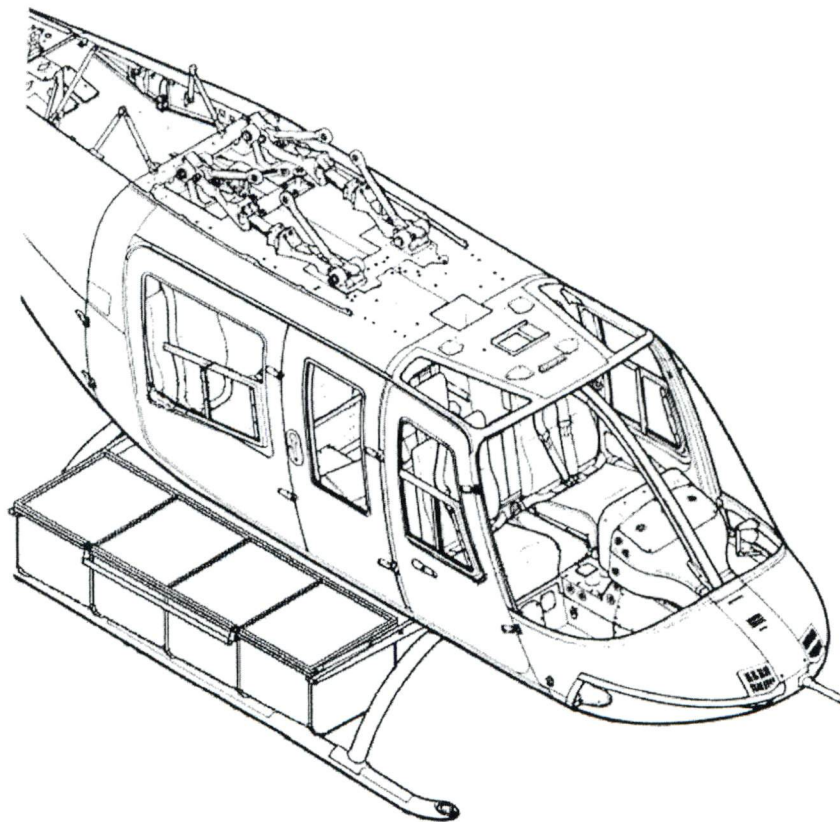


Figure 1 – Low Mounted Cargo Basket Configuration

Low Mounted Cargo Basket Configuration

English Units

Item	Weight (Lb)	Longitudinal		Lateral	
		Arm (in)	Moment (in*Lb)	Arm (in)	Moment (in*Lb)
Cargo Basket Installation	68.3	113.6	7762	30.6	2089
Cargo	200 (MAX)	114.1	22820	38.5	7700

Metric Units

Item	Weight (Kg)	Longitudinal		Lateral	
		Arm (mm)	Moment (mm*Kg)	Arm (mm)	Moment (mm*Kg)
Cargo Basket Installation	30,9	2885	89 160	777	24 016
Cargo	90.9 (MAX)	2898	263 467	978	88 900

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

2. The following weight and balance are for the high mounted cargo basket configuration, installed in accordance with drawing 60603.

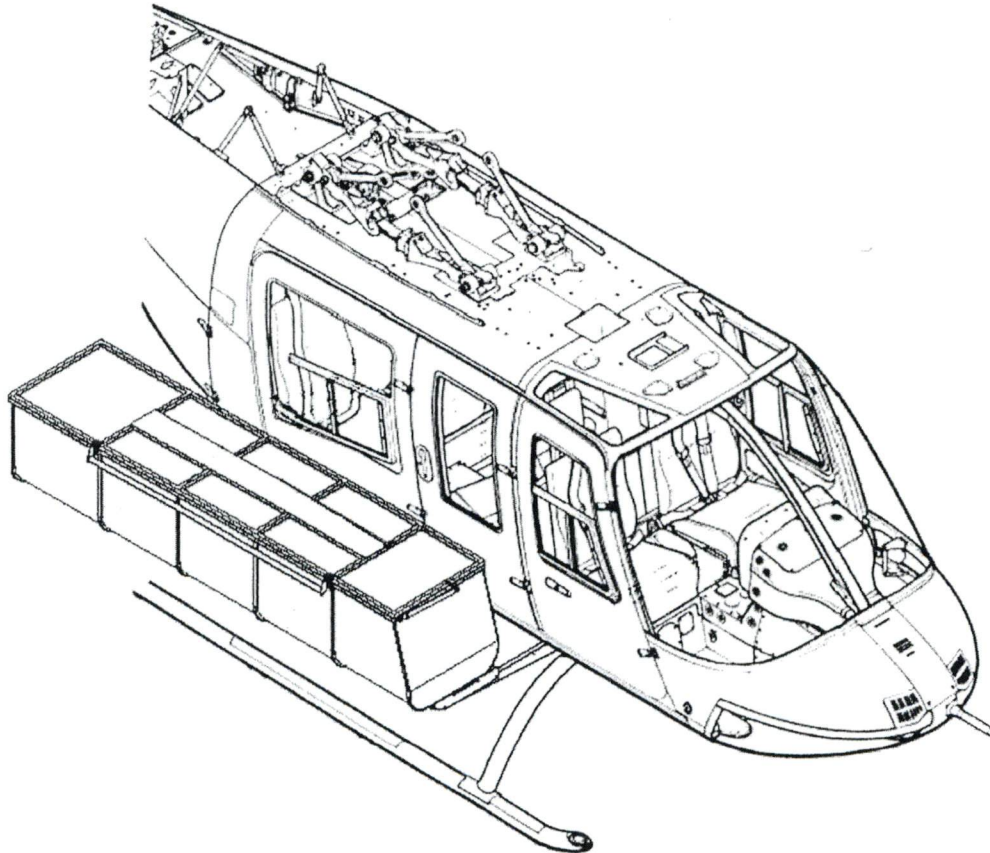


Figure 2 – High Mounted Cargo Basket Installation

High Mounted Cargo Basket Configuration

English Units

Item	Weight (Lb)	Longitudinal		Lateral	
		Arm (in)	Moment (in*Lb)	Arm (in)	Moment (in*Lb)
Cargo Basket Installation	86.5	121.0	10469	37.7	3258
Cargo	200 (MAX)	124.8	24960	46.8	9350

Metric Units

Item	Weight (Kg)	Longitudinal		Lateral	
		Arm (mm)	Moment (mm*Kg)	Arm (mm)	Moment (mm*Kg)
Cargo Basket Installation	39.1	3073	120 154	958	37 458
Cargo	90.9 (MAX)	3170	288 153	1189	108 080

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

AERO Design Ltd.

**MAINTENANCE INSTRUCTIONS
MI 606.01**

Cargo Basket and External Attachment Provisions

Bell 407 Helicopter

STC # SH00-48

Prepared by: Jeff Clarke

Revision 2, 19 July, 2004

This Maintenance Instruction document has been completely revised (19 July, 2004) and is accepted by Transport Canada, superseding MI 606.01 Revision 1, (16 July, 2004).

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	E-Mail: aerodesign@telusplanet.net

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1.0 INTRODUCTION

The Cargo Basket mounts to the side of the Bell 407 helicopter, supported by two beams bolted to the External Attachment Provisions that replace the landing gear fittings. The Cargo Basket may face the Starboard or Port sides of the helicopter.

2.0 DESCRIPTION

External Attachment Provisions are installed on the Bell 407 in accordance with Installation Drawing 60602. The forward landing gear fittings are replaced with two similar fittings that incorporate provisions for mounting the basket (Figure 2.1). Smaller blocks are attached inside the cavity in the aft fittings for mounting the aft end of the basket (Figure 2.2).

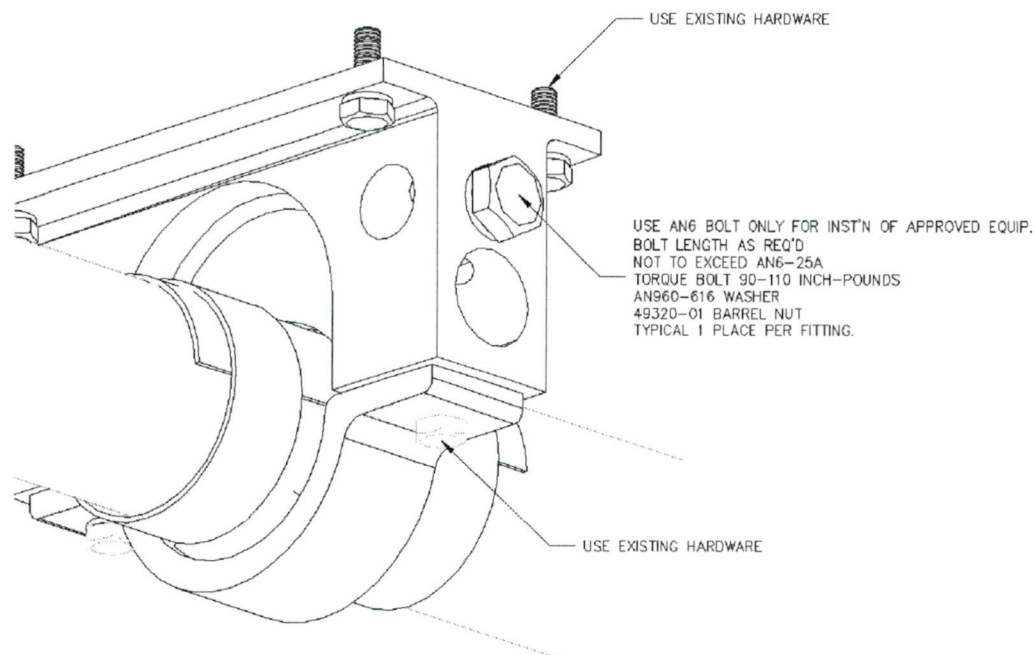


Figure 2.1 Installation of Forward Provisions

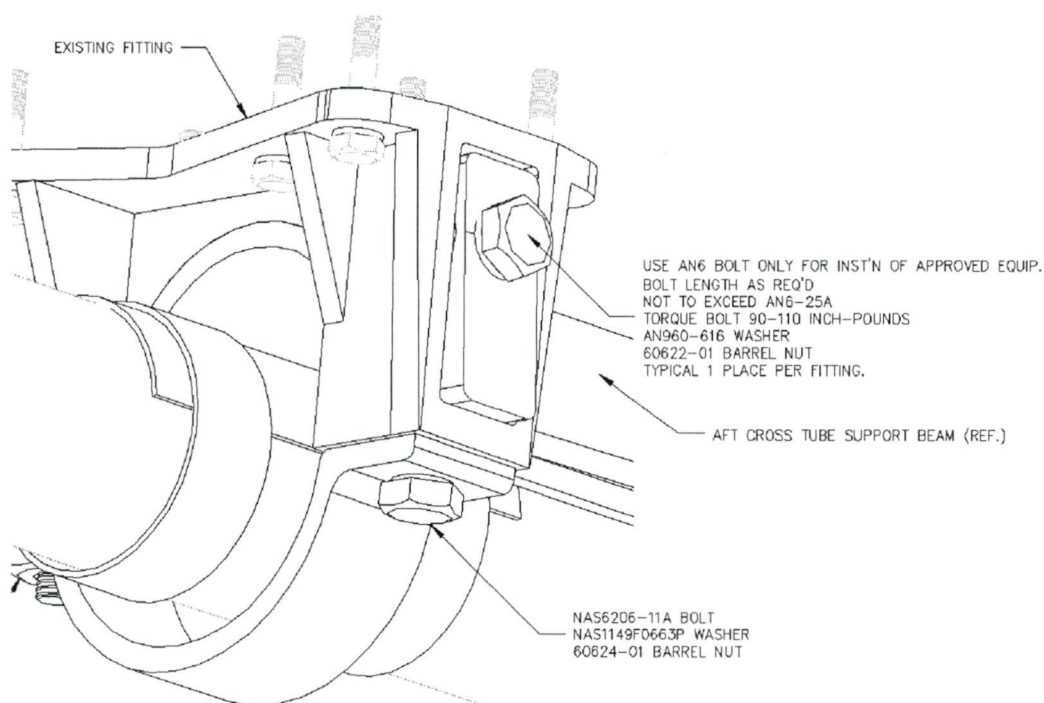


Figure 2.2 Installation of Aft Mounting Blocks in Landing Gear

The Cargo Basket is installed on the Bell 407 helicopter in accordance with Installation Drawing 60601. The appropriate beams are bolted to the External Attachment Provisions with AN6 bolts (Figure 2.3), secured with barrel nuts inside the fittings.

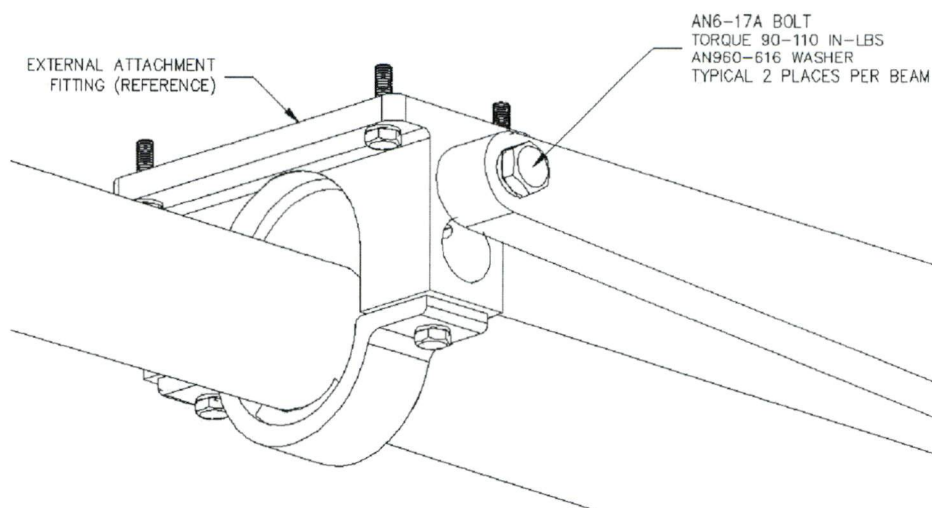


Figure 2.3 Attachment of Beam to Provisions

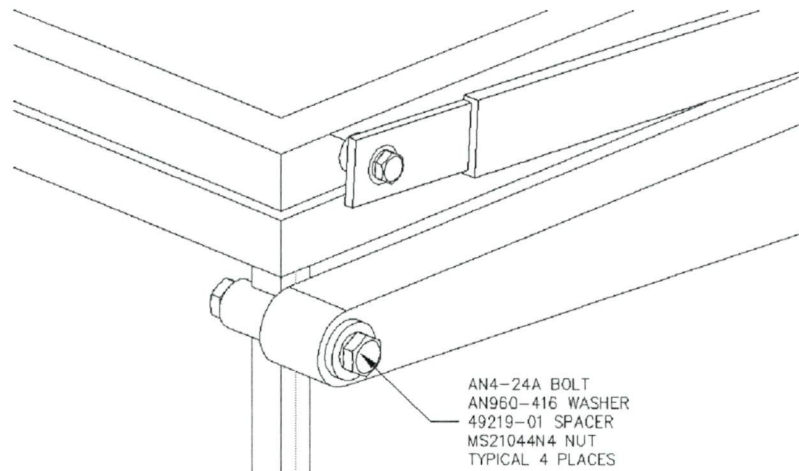


Figure 2.4 Attachment of Basket to Beam

The Basket is bolted to the beams with AN4 bolts (Figure 2.4).

Installation shall be performed to the standards described in AC43.13-1B, Chapter 7, Aircraft Hardware, Control Cables, and Turnbuckles.

Removal of the Cargo Basket is the reverse of the installation. The rotorcraft may be flown without the Cargo Basket and only the External Attachment Provisions installed.

See the Rotorcraft Maintenance Manual for more information on the removal and installation of the landing gear fittings.

3.0 INSPECTION PROCEDURES

3.1 Basket

- Visually inspect tube-to-tube welds and mesh- to-tube welds every 100 hours for cracks, corrosion or other damage.
- Visually inspect basket mesh for damage every 100 hours.

3.2 Beams

- Visually inspect beams attaching basket to the helicopter every 100 hours in situ for cracks, corrosion or other damage.
- Visually inspect bolts attaching the basket to the beams every 100 in situ hours for security and damage.
- Visually inspect bolts attaching beams to external attachment provisions every 100 hours in situ for security and damage.

3.3 External Attachment Provisions

- Visually inspect fittings every 100 hours for cracks, corrosion or other damage.
- Visually inspect hardware attaching fittings and hardware attaching cross-tubes to fitting, every 100 hours in situ for security and damage.

4.0 REPAIR PROCEDURES

4.1 Basket

Repair Basket in accordance with AC43.13-1B, Chapter 4, Section 5, Welding, as required, where mesh-to-tube or tube-to-tube welds have come apart.

Basket is fabricated from the following materials:

Lid and Rim:	¾" x 0.035" square 4130 steel tube
Frames:	½" x 0.035" square 4130 steel tube
Mesh:	¾" 18 ga. (0.040") expanded carbon steel mesh

Touch up with epoxy paint as required following repairs.

4.2 Beams

DO NOT REPAIR DAMAGE TO BEAMS IF BEYOND THE LIMITS BELOW.

- (a) Nicks and/or gouges on the top or bottom face up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour.
- (b) Nicks and/or gouges on the side faces up to 0.060" deep and 0.125" wide may be dressed out to a smooth contour.
- (c) Nicks on the corners up to 0.125" deep may be dressed out.
- (d) For elongation of basket attachment holes (AN4 bolt):
 - 1. Ream hole to 0.375 (+0.0005/-0.0000)
 - 2. Insert NAS76A4-100 bushing
- (e) For elongation of helicopter attachment holes (AN6 bolt):
 - 1. Ream hole to 0.5000 (+0.0005/-0.0000)
 - 2. Insert NAS76A6-100 bushing
- (f) Touch up paint as required following repairs.

4.3 Landing Gear Attachment Fittings

DO NOT REPAIR DAMAGE TO FITTINGS IF BEYOND THE LIMITS BELOW.

- (a) Nicks and/or gouges on any face up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour. Touch up paint as required.
- (b) Do not repair elongation of provision bolt hole (AN6 bolt). Hole is nominally 0.391" in diameter with 1/4" maximum freedom of motion left and right.
- (c) Do not repair elongation of barrel nut hole. Hole is nominally 3/4" in diameter.


5.0 LIMITATIONS

No overhaul time limitations or airworthiness limitations are applicable to the Cargo Basket or the External Attachment Provisions.


High Q.R.
Basket

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
76601	Cargo Basket Installation	0
ICA766.90	Instructions for Continued Airworthiness	0
FMS766.91	Flight Manual Supplement (Bell 407)	0
FMS766.92	Flight Manual Supplement (Bell 206L)	0
SI698.91	Service Instructions – Sliding Door Modification	0
FABRICATION DOCUMENTS		
DCL766-2	Document Control List for Quick Release High Basket Assembly	0

APPROVAL:  <p>Transport Canada E. BURGOIN DAR 290M APPROVED By: <i>[Signature]</i> Appr'l No. 51600-48 Appr'l Date 08 DEC 2006 Issue No. 6 Issue Date 30 JAN 2008 REVISED 19 SEPT 2008</p>	ORIGINAL DATE: 26 September, 2007 REVISION DATE: 23 September, 2008	<div style="text-align: center;"> AERO DESIGN LTD. 2013 – 39th Ave NE Calgary, Alberta T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div>
SHEET 1 OF 1		Bell 206L and 407 High Side-Mounted Cargo Basket Installation
<h2 style="margin: 0;">DCL766-1</h2>		Rev. <h2 style="margin: 0;">1</h2>

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
76610	Cargo Basket Assembly	0
76611	Cargo Basket Body	0
76621	Basket Components – End Hoop Assembly	0
76622	Basket Components – Attachment Hoop Assembly	0
76623	Basket Components – Hoop	0
76625	Basket Components – Placard	0
76630	Support Beams	0
60632	Cargo Basket Lid	0
60640	Basket Components – Rim	0
60643	Basket Components – Spine	0
60648	Basket Components – Hoop	0
60649	Basket Components – Step Brace	0
49212	Basket Components – Rim	0
49213	Basket Components – Lid Brace	1
49215	Basket Components – Lug	0
49216	Basket Components – Lug	0
36255	Handle Assembly	1
36261	Handle Bar Assembly	3
36262	Handle Bracket Assembly	1
36271	Handle Lever	1
36272	Basket Bracket	1
36273	Lid Bracket	1
36274	Bushing	1
36275	Bushing	2
36277	Handle Bar	0
36278	Spring	2
36280, Sheet 1	Brace	2
36280, Sheet 2	Brace	2
ENGINEERING DOCUMENTS		
ER766.01	Engineering Report	0
TP766.02	Test Plan	0
ER606.03	Engineering Report – High Mounted Basket	0
APPROVAL:		
 <div style="display: inline-block; vertical-align: top; margin-left: 10px;"> Transport Canada TRANSPORTS Canada AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>D.S. Clouston</u> Appr'l No. <u>SH00-48</u> Appr'l Date <u>00-12-08</u> Issue No. <u>6</u> Issue Date <u>08-01-30</u> YY-MM-DD </div>	ORIGINAL DATE: 26 September, 2007 REVISION DATE:	<div style="text-align: center;"> AERO DESIGN LTD. 2013 – 39th Ave NE Calgary, Alberta T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div>
	SHEET 1 OF 1	<div style="text-align: center;"> Bell 206L & 407 Quick Release High Cargo Basket Cargo Basket Assembly </div>
	<div style="display: flex; justify-content: space-between; align-items: center;"> DCL766-2 0 </div>	

BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT
for the
**INSTALLATION of the AERO DESIGN HIGH MOUNTED
QUICK RELEASE CARGO BASKET**

Supplemental Type Certificate No. SH00-48

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with the Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



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I	Limitations	3
II	Normal Procedures	3
III	Emergency Procedures	4
IV	Performance	4
V	Weight and Balance	5
VI	Installation / Removal Instructions	7

Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By

I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Cargo Basket is 200 Lb. (90.9 kg).
2. Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
3. Maximum lateral or rearward speed limited to 25 KIAS.
4. Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
5. V_{NE} is 140 KIAS except when the V_{NE} of the basic rotorcraft is more restrictive, in which case the lower V_{NE} applies.
6. No occupants in the passenger cabin unless helicopter is equipped with approved push out emergency windows or sliding door on the basket side of the helicopter.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure basket is located in correct lateral keyway for the configuration of the helicopter (see section VI):

If a right hand sliding door is installed the basket MUST be positioned in the most outboard lateral position to provide clearance for the door to open.

If a pop-out window is installed on the helicopter, the basket may be installed in either position, but the preferred position is inboard for a more favorable lateral C of G.
 - b) Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - c) Ensure that the lid of cargo basket is closed and secured.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 200 fpm.

Cruise speeds are reduced by approximately 10 kts. (11 mph).

V WEIGHT AND BALANCE

1. The following weight and balance is for the high mounted quick release cargo basket configuration, installed in accordance with drawing 76601.

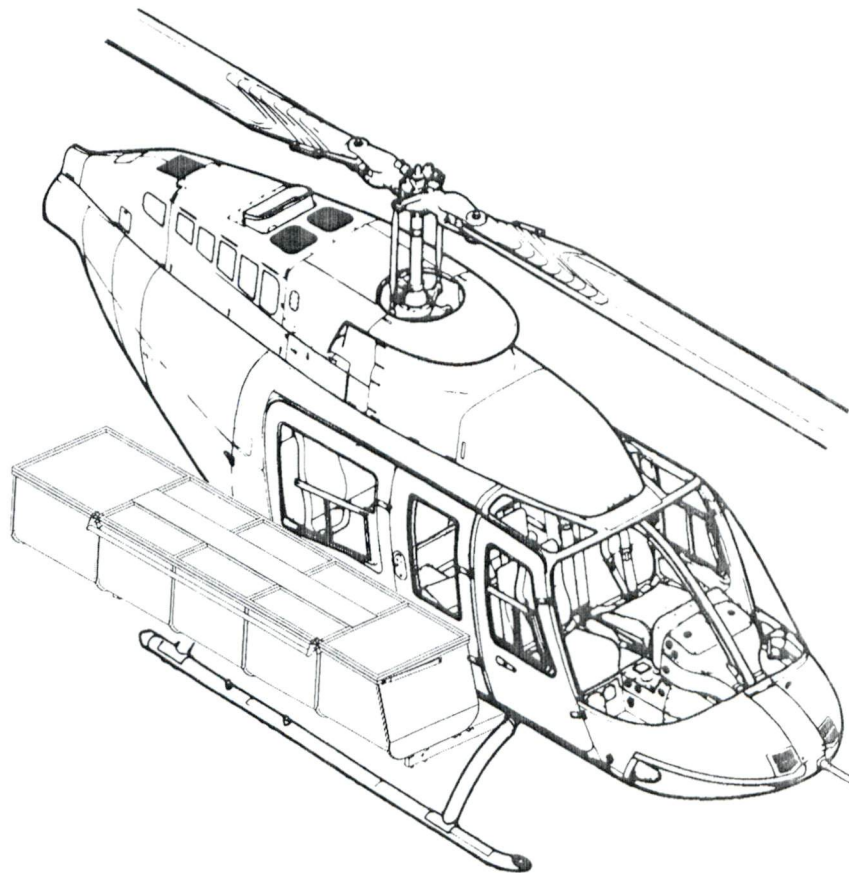


Figure 1 – High Mounted Quick Release Cargo Basket Configuration

High Mounted Quick Release Cargo Basket Configuration

Refer to section VI for definition of inboard and outboard installation.

English Units

Item	Weight (lbs)	Longitudinal		Lateral	
		Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
Cargo Basket (Outboard)	55.5	124.4	6904.2	46.8	2597.4
Cargo (Max, Outboard)	200	124.4	24880.0	46.8	9360.0
Cargo Basket (Inboard)	55.5	124.4	6904.2	42.3	2347.7
Cargo (Max, Inboard)	200	124.4	24880.0	42.3	8460.0

Metric Units

Item	Weight (kg)	Longitudinal		Lateral	
		Arm (mm)	Moment (mm-kg)	Arm (mm)	Moment (mm-kg)
Cargo Basket (Outboard)	25.1	3160	79316	1189	29844
Cargo (Max, Outboard)	90.9	3160	287244	1189	108030
Cargo Basket (Inboard)	25.1	3160	79316	1074	26957
Cargo (Max, Inboard)	90.9	3160	287244	1074	97627

Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

VI INSTALLATION / REMOVAL INSTRUCTIONS

Provisions on the beams allow the basket to be mounted in either an inboard lateral position or an outboard lateral position.

If a right hand sliding door is installed the basket MUST be positioned in the most outboard lateral position to provide clearance for the door to open.

If a pop-out window is installed on the helicopter, the basket may be installed in either position, but the inboard lateral position is recommended to give a more favorable lateral C of G.

A stop is to be installed to prevent use of an incorrect keyway in accordance with drawing 76601.

Installation

Refer to Figure 2 for outboard installation. Refer to Figure 3 for inboard installation.

1. Set basket inboard attachment into inboard keyway on forward and aft beams. Slide basket to end of keyway.
2. At forward end of basket, slide basket until outboard attachment fitting hits block at edge of keyway. Push fitting into keyway and slide until locked.
3. Repeat step 2 for aft end.

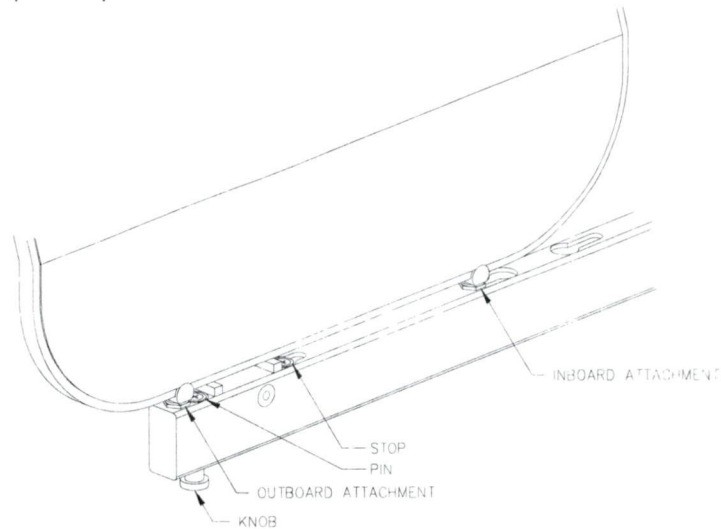


Figure 2 – Outboard Lateral Basket Attachment

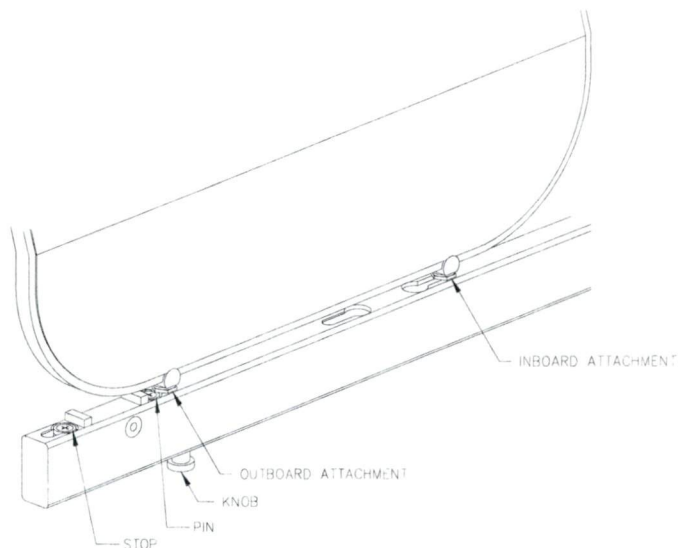


Figure 3 – Inboard Lateral Basket Attachment

Removal

Refer to Figure 2 and 3.

1. Pull knob at outboard end of forward beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
2. Pull knob at outboard end of aft beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
3. Slide basket until inboard attachments are out of keyway on beams and remove basket from helicopter.

BELL 206L SERIES

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN HIGH MOUNTED QUICK RELEASE CARGO BASKET

Supplemental Type Certificate No. SH00-48

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

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II	Normal Procedures	3
III	Emergency Procedures	4
IV	Performance	4
V	Weight and Balance	5
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I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Cargo Basket is 200 Lb. (90.9 kg).
2. Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
3. Maximum lateral or rearward speed limited to 25 KIAS.
4. Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
5. V_{NE} limitations are unchanged from the basic rotorcraft flight manual.
6. No occupants in the passenger cabin unless helicopter is equipped with approved push out emergency windows or sliding door on the basket side of the helicopter.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure basket is located in correct lateral keyway for the configuration of the helicopter (see section VI):

If a right hand sliding door is installed the basket MUST be positioned in the most outboard lateral position to provide clearance for the door to open.

If a pop-out window is installed on the helicopter, the basket may be installed in either position, but the preferred position is inboard for a more favorable lateral C of G.
 - b) Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - c) Ensure that the lid of cargo basket is closed and secured.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 200 fpm.

Cruise speeds are reduced by approximately 10 kts. (11 mph).

V WEIGHT AND BALANCE

1. The following weight and balance is for the high mounted quick release cargo basket configuration, installed in accordance with drawing 76601.

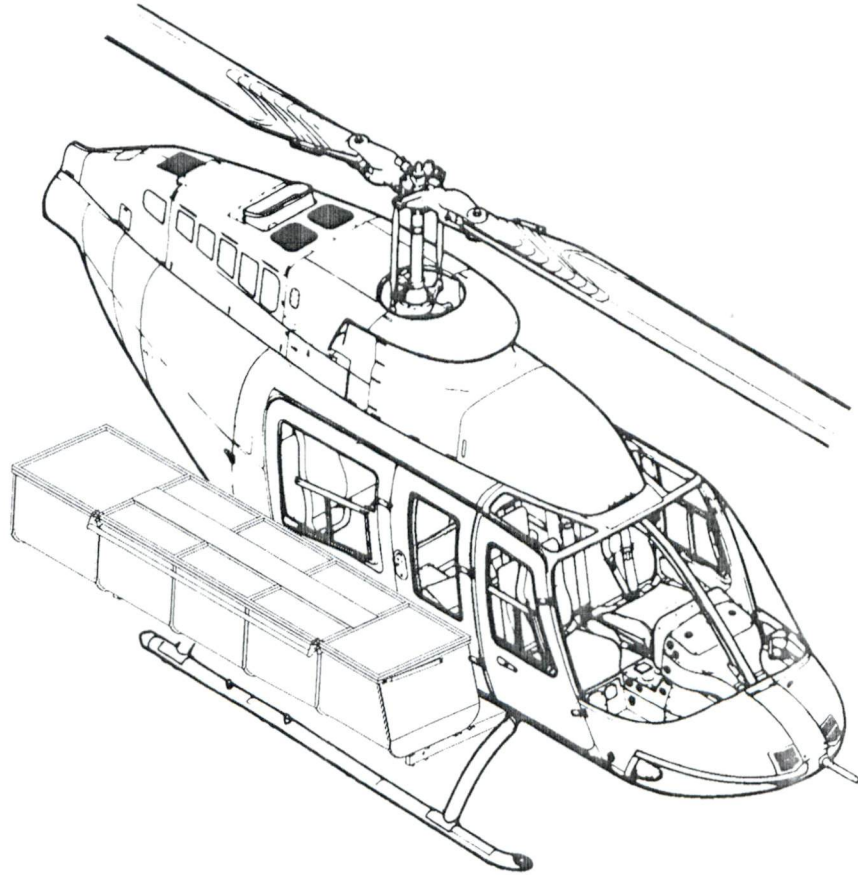


Figure 1 – High Mounted Quick Release Cargo Basket Configuration

High Mounted Quick Release Cargo Basket Configuration

Refer to section VI for definition of inboard and outboard installation.

English Units

Item	Weight (lbs)	Longitudinal		Lateral	
		Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
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Metric Units

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		Arm (mm)	Moment (mm-kg)	Arm (mm)	Moment (mm-kg)
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Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft could be out of limits.

VI INSTALLATION / REMOVAL INSTRUCTIONS

Provisions on the beams allow the basket to be mounted in either an inboard lateral position or an outboard lateral position.

If a right hand sliding door is installed the basket MUST be positioned in the most outboard lateral position to provide clearance for the door to open.

If a pop-out window is installed on the helicopter, the basket may be installed in either position, but the inboard lateral position is recommended to give a more favorable lateral C of G.

A stop is to be installed to prevent use of an incorrect keyway in accordance with drawing 76601.

Installation

Refer to Figure 2 for outboard installation. Refer to Figure 3 for inboard installation.

1. Set basket inboard attachment into inboard keyway on forward and aft beams. Slide basket to end of keyway.
2. At forward end of basket, slide basket until outboard attachment fitting hits block at edge of keyway. Push fitting into keyway and slide until locked.
3. Repeat step 2 for aft end.

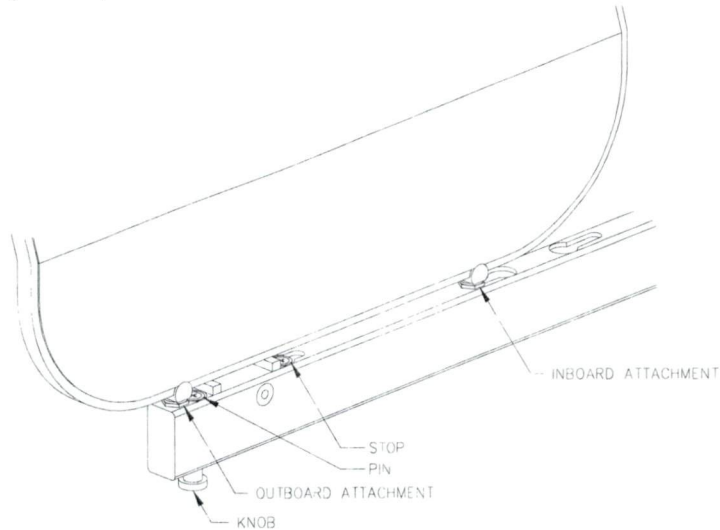


Figure 2 – Outboard Lateral Basket Attachment

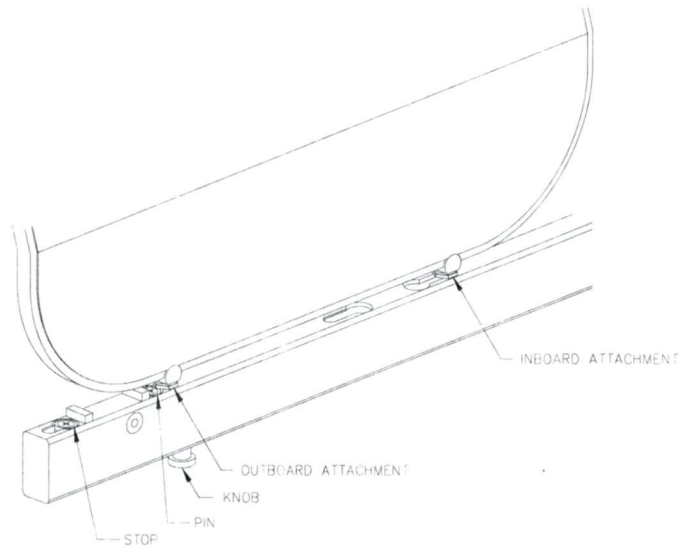


Figure 3 – Inboard Lateral Basket Attachment

Removal

Refer to Figure 2 and 3.

1. Pull knob at outboard end of forward beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
2. Pull knob at outboard end of aft beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
3. Slide basket until inboard attachments are out of keyway on beams and remove basket from helicopter.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 766.90

QUICK RELEASE CARGO BASKET

Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Quick Release Cargo Basket assembled in accordance with AERO Design Ltd. Document Control List DCL766-2, Revision 0, or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 0
Date: 26 September, 2007

AERO Design Ltd.
Engineering Consultants

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E-Mail: infor@aerodesign.ca

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RECORD OF REVISIONS

Revision Number	Issue Date	Date Inserted	By
0			Original Issue

LIST OF EFFECTIVE PAGES

List of Revisions

Revision 0 (Original Issue)

26 September, 2007

List of Effective Pages

<u>Description</u>	<u>Pages</u>	<u>Revision No.</u>
Cover	1	0
Revision Record/List of Effective Pages	2	0
Table of Contents	3	0
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04-00-00	7	0
05-00-00	8-9	0
11-00-00	10	0
25-50-00	11-13	0

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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for rotorcraft embodying the Quick Release Cargo Basket as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness

LH - Left Hand

RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Quick Release Cargo Basket. Requests for a copy may be made in writing to:

AERO Design Ltd.
2013 39th Avenue N.E.
Calgary, Alberta
T2E 6R7
Fax: 403-250-8333
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

0-5 GENERAL DESCRIPTION

The cargo basket installation is a metal mesh basket installed to the side of the helicopter on beams attached to landing gear fittings with attachment provisions incorporated. The quick release basket allows for the installation and removal of the basket without tools, allowing a pilot operating in the field without maintenance support to install or remove the basket.

The basket itself is 96.5" long, 22.5" wide, and 20" high. It is made of a welded steel tubing structure, and lined with expanded steel mesh. The basket has a hinged lid with a self-locking handle.

The beams are steel tubing which attach to the landing gear fittings and stick out from the side of the helicopter. The quick release mechanism is built into the beams.

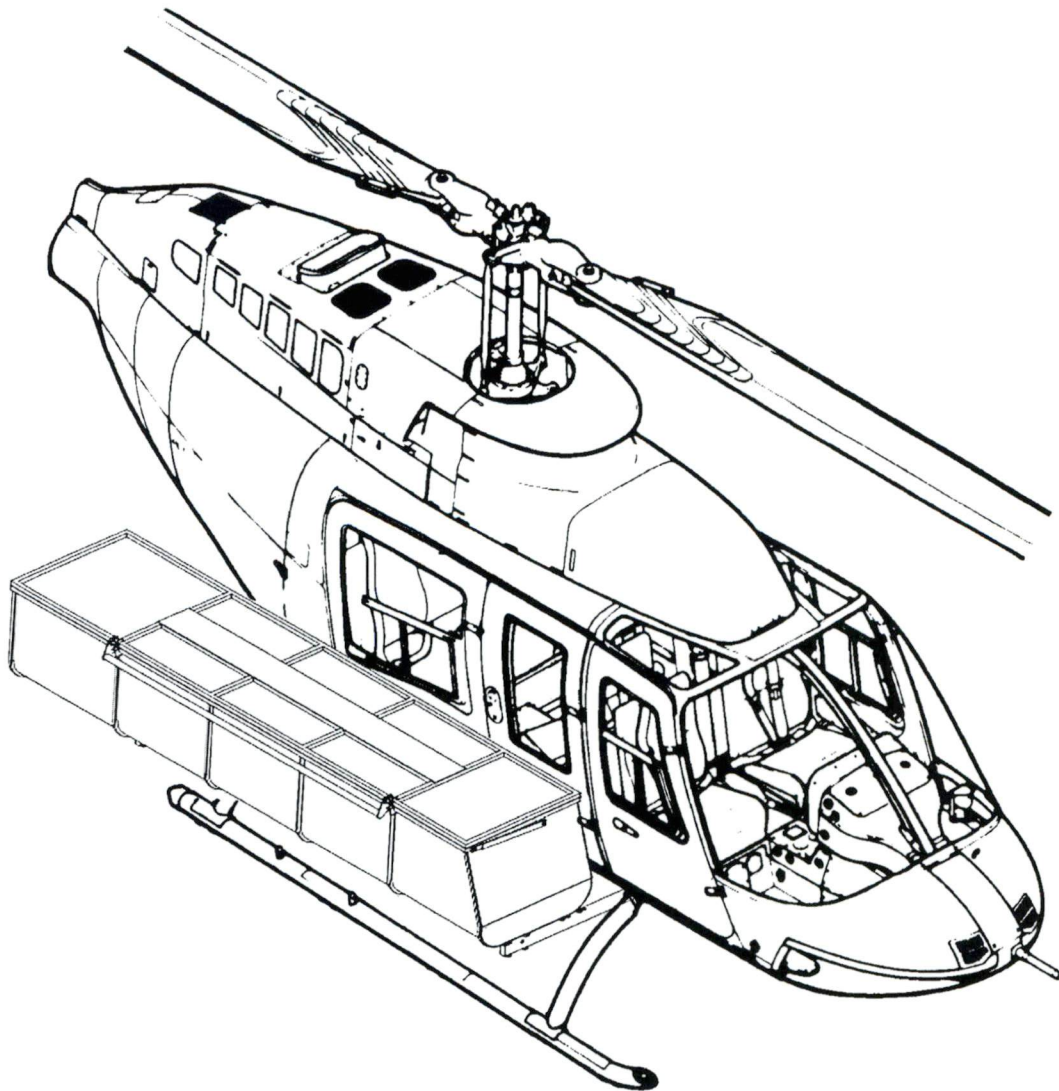


Figure 1 – Cargo Basket Installation

0-6 STRUCTURAL PROVISIONS

The External Attachment Provisions are installed on the helicopter in accordance with drawing 49301 (Bell 206L Series) or 60602 (Bell 407). That installation is separate from the basket installation. The External Attachment Provisions are not included in this ICA.

The external attachment provisions consist of replacement landing gear fittings that incorporate a barrel nut for installing equipment. Each fitting is bolted to the lower fuselage and landing gear with the same fasteners as used for the original fittings, as shown in Figure 2.

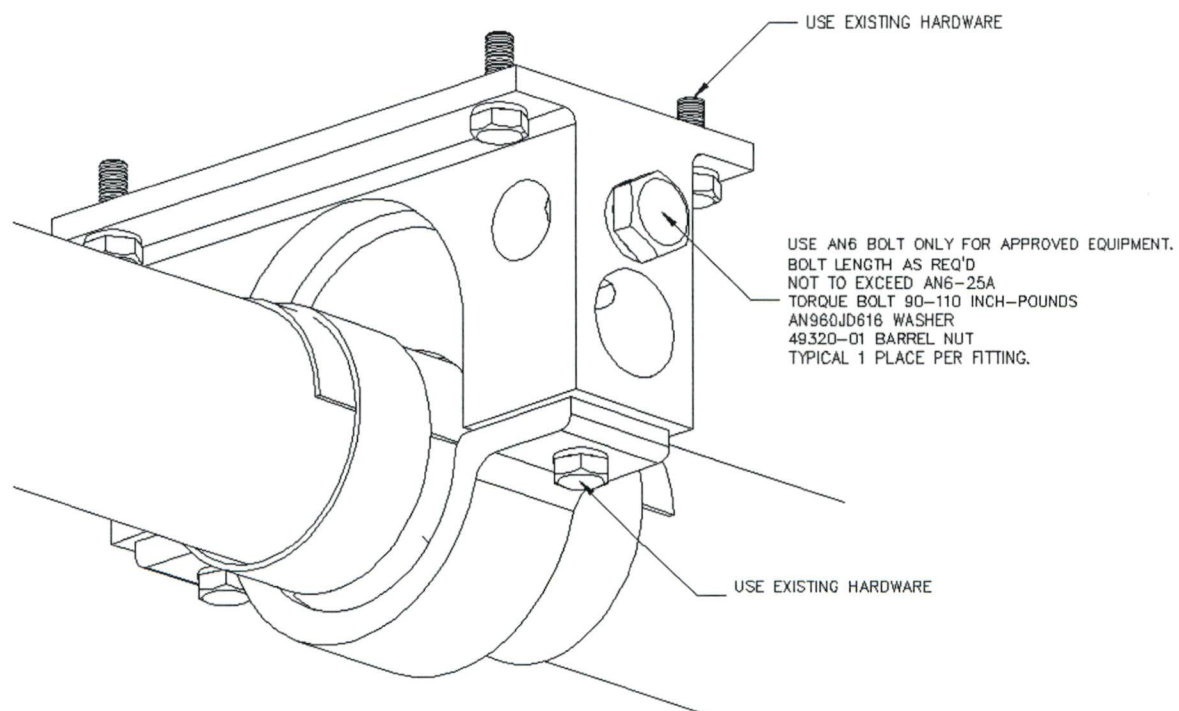


Figure 2 - Installation of External Attachment Provisions

CHAPTER 4 - AIRWORTHINESS LIMITATIONS

The Airworthiness Limitations section is Transport Canada-approved and specifies maintenance required under Section 571 of the Canadian Aviation Regulations, unless an alternative program has been approved.

No additional airworthiness limitations have been imposed due the installation of the Quick Release Cargo Basket.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Quick Release Cargo Basket.

Daily Inspection

1. Inspection Area: Basket
 - a) Inspect the basket attachment to the beams for condition and security. Ensure quick release mechanism is completely extended, flush with the upper surface of the beam.
 - b) Inspect latching of the lid for correct operation. If basket is bent inward the lid will close but may not latch.
 - c) Visually inspect lugs attaching the basket to the beams for security and damage.

300 Hour or Annual Inspection

1. Inspection Area: Basket
 - a) Visually inspect tube-to-tube welds and mesh-to-tube welds for cracks, corrosion or other damage.
 - b) Visually inspect basket mesh for damage.
2. Inspection Area: Beams
 - a) Visually inspect beams attaching basket to the helicopter for cracks, corrosion or other damage.
 - b) Visually inspect bolts attaching beams to external attachment provisions for security and damage.

Special Inspections

Following a hard landing inspect the Quick Release Cargo Basket installation in accordance with the 300 hour or annual inspection listed above.

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Basket

- a) Repair Basket in accordance with AC43.13-1B, Chapter 4, Section 5, Welding, as required.
- b) Basket is fabricated from the following materials:
 - Lid and Rim: $\frac{3}{4}$ " square steel tube
 - Frames: $\frac{1}{2}$ " square steel tube
 - Mesh: $\frac{3}{4}$ " 16 ga. (0.040") expanded steel mesh
- c) Touch up with polyurethane paint as required following repairs.

2. Beams

DO NOT REPAIR DAMAGE TO BEAMS IF BEYOND THE LIMITS BELOW.

- a) Nicks and/or gouges on the top or bottom face up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour.
- b) Nicks and/or gouges on the side faces up to 0.060" deep and 0.125" wide may be dressed out to a smooth contour.
- c) Limits for the keyways on the top surface of both beams is shown in Figure 3. Attempt to insert 27/64" drill shank into bottom end of slot. If drill can be inserted, slot is worn beyond limit.



Figure 3 – Keyway Limits

- d) Touch up with polyurethane paint as required following repairs.

5-3 PROTECTIVE TREATMENT INFORMATION

1. Beams

The beams are supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint.

2. Cargo Basket

The cargo basket is supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint.

CHAPTER 11 – MARKINGS AND PLACARDS

The following markings and placards are used with the Quick Release Cargo Basket Installation in the locations noted:

- a) Located on basket lid:



CHAPTER 25 – EQUIPMENT AND FURNISHINGS**SECTION 50 – CARGO COMPARTMENTS****25-1 BEAMS INSTALLATION**

Refer to Figure 4.

1. External Attachment Provisions installed in accordance with drawing 49301 (Bell 206L Series) or 60602 (Bell 407) are required prior to installing the Beams.
2. Locate 49222-01 Forward Beam on aft side of Forward Landing Gear Fittings. Install two AN6-20A Bolt and AN960-616 Washer into Barrel Nuts in Fittings. Torque AN6 bolts to 90-110 in-lbs.
3. Locate 49222-02 Aft Beam on forward side of Aft Landing Gear Fittings. Install two AN6-20A Bolt and AN960-616 Washer into Barrel Nuts in Fittings. Torque AN6 bolts to 90-110 in-lbs.

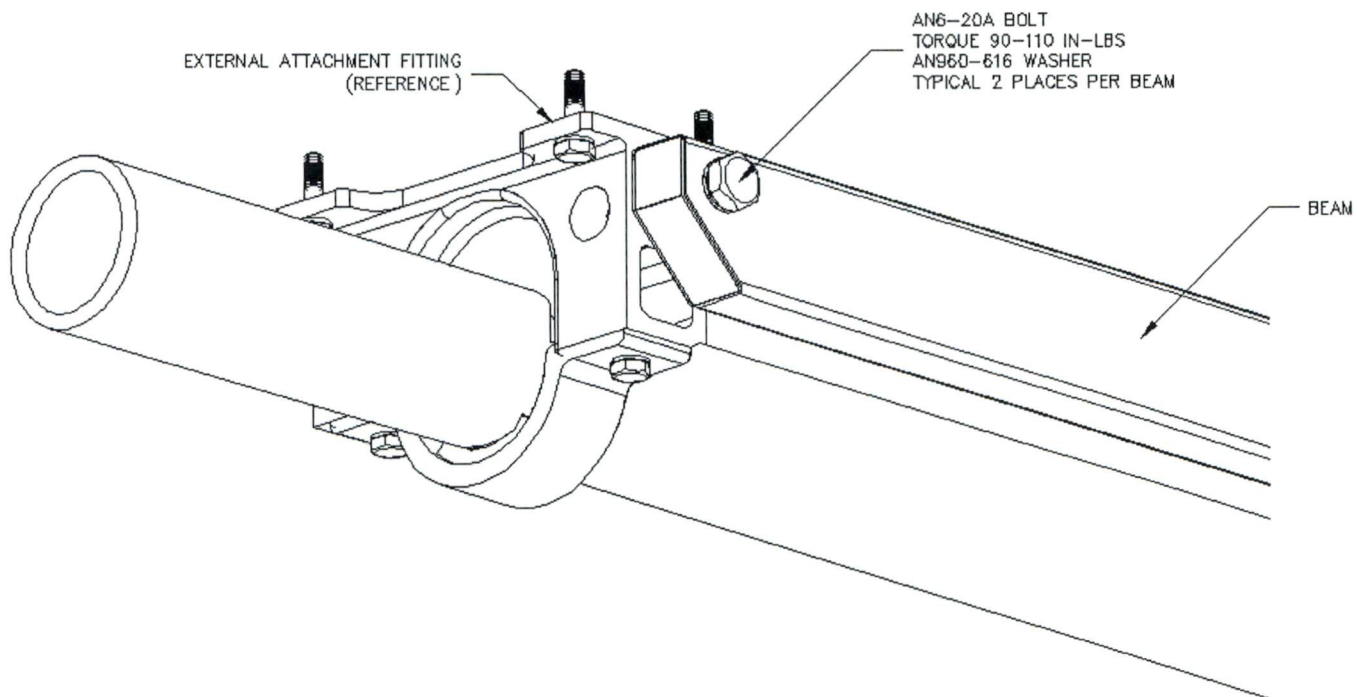


Figure 4 - Beams

25-2 BEAMS REMOVAL

Refer to Figure 4.

1. Remove Cargo Basket. Refer to section 25-4.
2. Remove two AN6-20A Bolt and AN960-616 Washer from 49222-01 Forward Beam. Remove Forward Beam.
3. Remove two AN6-20A Bolt and AN960-616 Washer from 49222-02 Aft Beam. Remove Aft Beam.

25-3 BASKET INSTALLATION

Provisions on the beams allow the basket to be mounted in either an inboard lateral position or an outboard lateral position.

If a right hand sliding door is installed the basket MUST be positioned in the most outboard lateral position to provide clearance for the door to open.

If a pop-out window is installed on the helicopter, the basket may be installed in either position, but the inboard lateral position is recommended to give a more favourable lateral C of G.

Stop (76630-14) is to be installed to prevent use of an incorrect keyway in accordance with drawing 76601.

Refer to Figure 5 for outboard installation. Refer to figure 6 for inboard installation.

1. Set basket inboard attachment into inboard keyway on forward and aft beams. Slide basket to end of keyway.
2. At forward end of basket, slide basket until outboard attachment fitting hits stop. Push fitting into keyway and slide until locked.
3. Repeat step 2 for aft end.

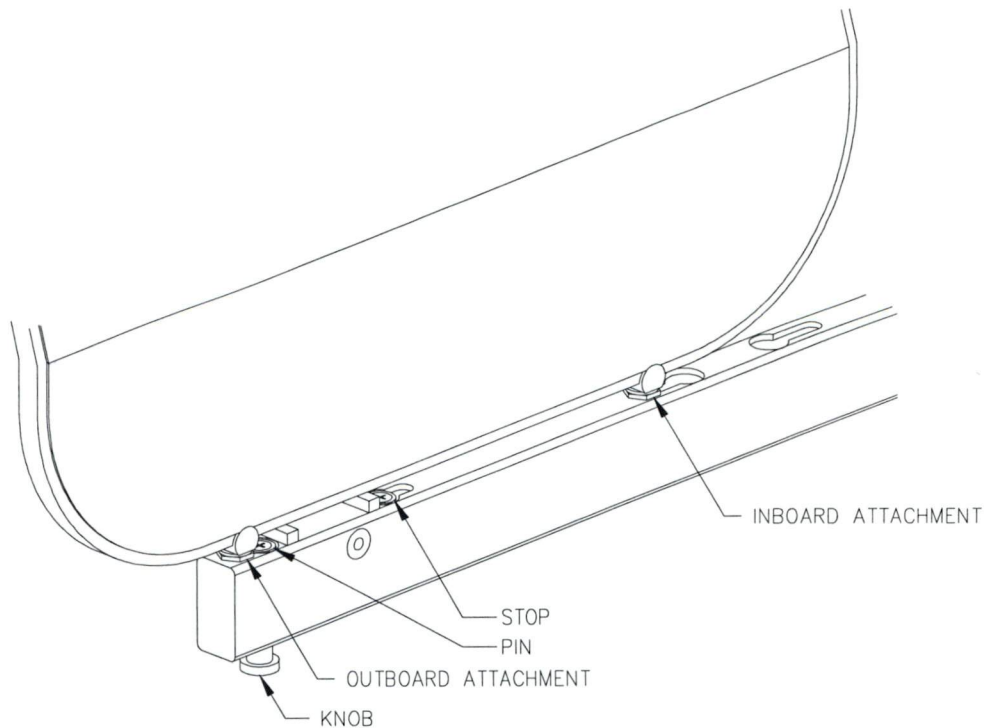


Figure 5 – Outboard Lateral Basket Attachment

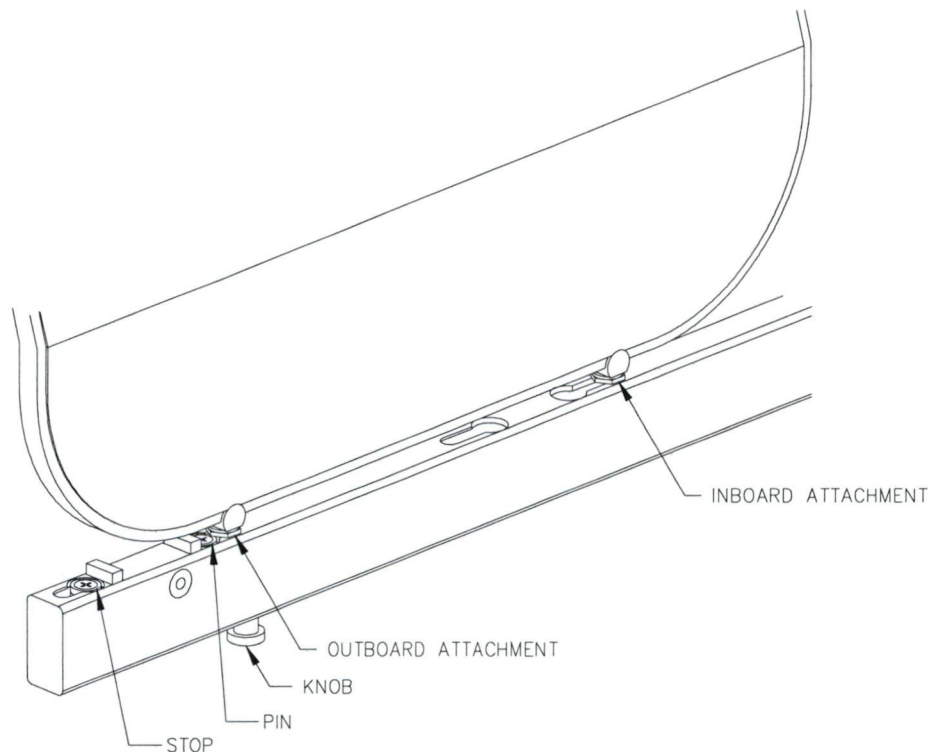


Figure 6 – Inboard Lateral Basket Attachment

25-4 BASKET REMOVAL

Refer to Figure 5 and Figure 6.

1. Pull knob at outboard end of forward beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
2. Pull knob at outboard end of aft beam and slide basket until outboard attachment fitting is free of keyway. Keep inboard attachment in keyway on beam.
3. Slide basket until inboard attachments are out of keyway on beams and remove basket from helicopter.

25-5 WEIGHT AND BALANCE

Two weight and balance configurations are required for the pilot as the basket may be removed or installed in the field. The first is the installation of Beams only. The second is the complete installation of Cargo Basket and Beams.

Configuration 1 – Beams Only		Weight (lbs)	Longitudinal		Lateral	
Part #	Name		Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
49222-01	Forward Beam	11.8	76.4	901.5	19.4	228.9
49222-02	Aft Beam	11.4	151.2	1723.7	20.9	238.3
Total		23.2	113.2	2625.2	20.1	467.2

Configuration 2A – Outboard Mounted Basket		Weight (lbs)	Longitudinal		Lateral	
Part #	Name		Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
49222-01	Forward Beam	11.8	76.4	901.5	19.4	228.9
49222-02	Aft Beam	11.4	151.2	1723.7	20.9	238.3
76610-01	Cargo Basket	55.5	124.4	6904.2	46.8	2597.4
Total		78.7	121.1	9529.4	38.9	3064.6

Configuration 2B – Inboard Mounted Basket		Weight (lbs)	Longitudinal		Lateral	
Part #	Name		Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
49222-01	Forward Beam	11.8	76.4	901.5	19.4	228.9
49222-02	Aft Beam	11.4	151.2	1723.7	20.9	238.3
76610-01	Cargo Basket	55.5	124.4	6904.2	42.3	2347.7
Total		78.7	121.1	9529.4	35.8	2814.9

25-6 STRUCTURAL FASTENER DATA

Refer to Bell Standard Practices Manual BHT-ALL-SPM for torque values not listed in this ICA.

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
80002	Quick Release Step Installation	0
ICA800.90	Instructions for Continued Airworthiness	2
FMS701.90	Flight Manual Supplement (Bell 407)	2
FMS702.90	Flight Manual Supplement (Bell 206L Series)	2
FABRICATION DOCUMENTS		
DCL800-12	Document Control List for Quick Release Step	0
ENGINEERING DOCUMENTS		
APPROVAL:		
 Transport Canada Transports Canada AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>[Signature]</u> App'l No. <u>5100-48</u> App'l Date <u>00-12-08</u> Issue No. <u>7</u> Issue Date <u>09-04-07</u> <small>YY - MM - DD</small>		ORIGINAL DATE: 2 December, 2008 REVISION DATE: SHEET 1 OF 1
AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 www.aerodesign.ca		
Bell 206L Series & 407 Quick Release Step Installation		
DCL800-2		Rev. 0

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 800.90

QUICK RELEASE STEP

Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Quick Release Step assembled in accordance with AERO Design Ltd. Document Control List DCL800-11, Revision 0, or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 2
Date: 2 December, 2008

AERO Design Ltd.
Engineering Consultants

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RECORD OF REVISIONS

Revision Number	Issue Date	Date Inserted	By
0	17 July 2008		Original Issue
1	18 November 2008		
2	2 December 2008		

LIST OF EFFECTIVE PAGES

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Revision 0 (Original Issue)

17 July, 2008

Revision 1

18 November, 2008

Revision 2

2 December, 2008

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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27/29.1529, and provide the information necessary to complete the on-going maintenance and inspections required for rotorcraft embodying the Quick Release Step as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Quick Release Step. Requests for a copy may be made in writing to:

AERO Design Ltd.
2013 39th Avenue N.E.
Calgary, Alberta
T2E 6R7
Fax: 403-250-8333
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

0-5 GENERAL DESCRIPTION

The Quick Release Step installation consists of a step assembly which is attached to quick release mounting provisions installed on the helicopter. These mounting provisions are capable of mounting various equipment including cargo baskets.

The step itself consists of an aluminum extrusion attached to brackets on the ends with fittings that lock into the quick release mechanism.

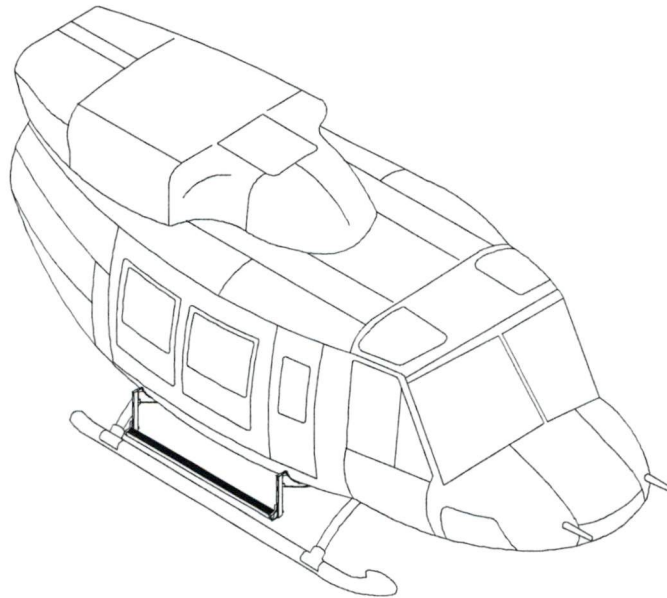


Figure 2a – Bell Medium Step Installation

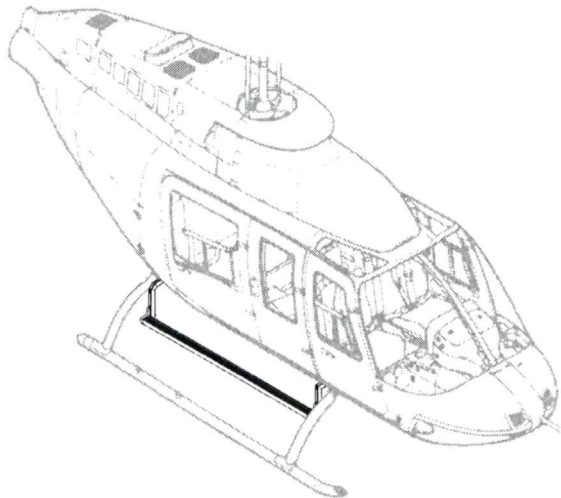


Figure 2b – Bell 206L / 407 Step Installation

CHAPTER 4 - AIRWORTHINESS LIMITATIONS

Transport Canada

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

FAA

The Airworthiness Limitations section is FAA approved and specifies maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

No additional airworthiness limitations have been imposed due to installation of the Quick Release Step.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Quick Release Step.

Daily Inspection

1. Inspection Area: Step

- a) Inspect the step attachment to the beams for condition and security. Ensure quick release mechanism is completely extended, flush with the outboard surface of the beam.

300 Hour or Annual Inspection

Refer to the ICA for the Quick Release Cargo Basket for each specific model of helicopter for inspection of mounting provisions.

1. Inspection Area: Step

- a) Visually inspect welds attaching end brackets to step extrusion for cracks, corrosion or other damage.
- b) Visually inspect step for damage.
- c) Visually inspect lugs attaching the step to the beams for security and damage.

Special Inspections

Following a hard landing inspect the Quick Release Step installation in accordance with the 300 hour or annual inspection listed above.

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

Refer to the ICA for the Quick Release Cargo Basket for each specific model of helicopter for further limits and repair instructions.

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Step Assembly

Part	Type of Damage	Max. Allowable	Repair
Step End Bracket	Corrosion	0.010" deep	Blend up to 0.010" deep with scotchbrite.
	Scratches / Nicks	0.010" deep x 0.5" long	Blend up to 0.010" deep with scotchbrite.
	Cracks/Dents	None	N/A
	Bent Lugs	None	N/A
Centre Step Section	Corrosion	2" x 2" x 0.010" deep	Blend up to 0.010" deep with scotchbrite.
	Scratches / Nicks	0.010" deep x 1" long	Blend up to 0.010" deep with scotchbrite.
	Cracks / Dents	None	N/A
	Permanent Deflection of Step	0.25" max at middle of step	None

2. Steel Beams

Part	Type of Damage	Max. Allowable	Repair
Steel Beam	Corrosion	0.030" deep	Blend up to 0.030" deep with scotchbrite.
	Scratches / Nicks (Outboard face)	0.030" deep x 0.125" wide	Blend up to 0.030" deep with scotchbrite.
	Scratches / Nicks (all other sides)	0.060" deep x 0.125" wide	Blend up to 0.060" deep with scotchbrite.
	Cracks/Dents	None	N/A
	Elongation of Keyway	See figure 3	None
	Widening of slots	27/64" (0.422) diameter (check with a 27/64" drill)	None

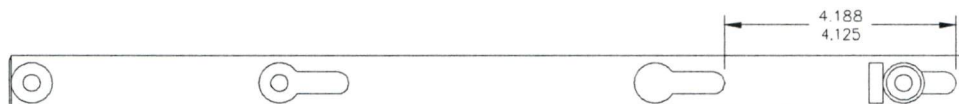


Figure 3 – Critical Keyway dimensions
(Bell Medium beam shown, Bell 206L/407 critical keyway same)

3. Step Welds

Cracks up to 0.25" long may be repaired as follows:

- a) Clean area of paint.
- b) Grind away weld in area of crack.
- c) T.I.G. weld per MIL-STD-2219 Class "C" using ER4043 filler rod. Do not grind flush.
- d) Touch up paint as noted in section 5-3.

5-3 PROTECTIVE TREATMENT INFORMATION

1. Step Assembly

The Step Assembly is supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint. The tread area is painted with anti-skid paint. If the anti-skid paint is damaged, touch up with Randolph X1567 Wingwalk grip paint or equivalent.

CHAPTER 25 – EQUIPMENT AND FURNISHINGS

The Quick Release Step Installation may be applied to the right and/or left side of the helicopter. A stowed position located on the inboard side of the mounting provisions is provided on some configurations. Refer to the ICA for the Quick Release Cargo Basket for each specific model of helicopter for installation and removal instructions for the mounting provisions.

25-1 STEP INSTALLATION

Refer to Figure 4.

1. Set upper attachment into upper keyway in forward and aft beams.
2. Lift step until lower attachment fitting hits stop. Push fitting into keyway and slide step down until locked.

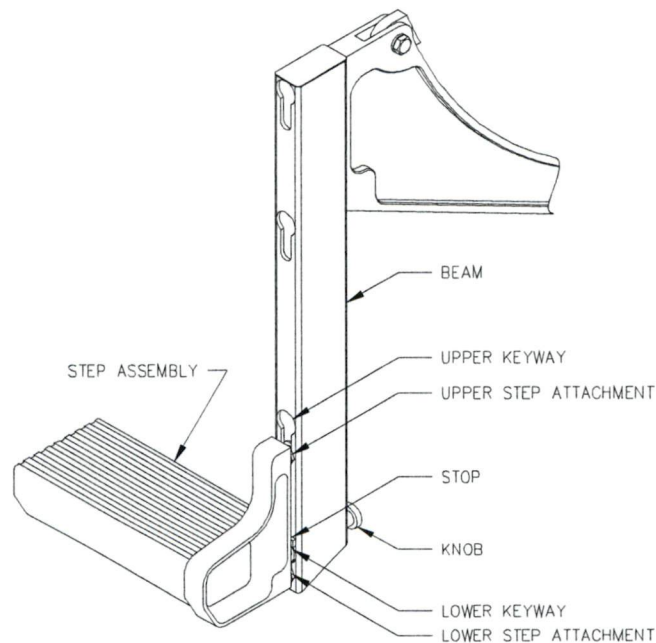


Figure 4 – Step Attachment

(Bell Medium Attachment shown, Bell 206L/407 attachments same)

25-2 STEP REMOVAL

Refer to Figure 4.

1. Pull knob at bottom end of forward beam and lift step until lower attachment fitting is free of keyway. Keep upper attachment in keyway on beam.
2. Pull knob at bottom end of aft beam and lift step until lower attachment fitting is free of keyway. Keep upper attachment in keyway on beam.
3. Lift step until upper attachments are out of keyways on both beams and remove from helicopter.

25-3 WEIGHT AND BALANCE

Different weight and balance configurations are required for the pilot as the step may be removed/installed in the field by the pilot. The first is the installation of Provisions only. The second is Provisions and Step. The third is Provisions and Step in the stowed position.

Bell 205A-1 / 212 / 412 Series

Configuration 1 – Provisions Only		Weight (lbs)	Longitudinal		Lateral	
Part #	Name		Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
75115-01	Forward Beam Assembly	5.0	84.5	422.5	46.0	230.0
75116-01	Aft Beam Assembly	4.6	155.1	713.5	47.3	217.6
75102-01	Provisions Installation (Total)	9.6	118.3	1136.0	46.6	447.6

Configuration 2 – Step and Provisions		Weight (lbs)	Longitudinal		Lateral	
Part #	Name		Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
75102-01	Provisions Installation	9.6	118.3	1136.0	46.6	447.6
80010-7100	Step	7.8	119.8	934.4	52.2	407.1
80001-01	Step Installation (Total)	17.4	119.0	2070.4	49.1	854.7

Configuration 3 – Step and Provisions (Stowed)		Weight (lbs)	Longitudinal		Lateral	
Part #	Name		Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
75102-01	Provisions Installation	9.6	118.3	1136.0	46.6	447.6
80010-7100	Step	7.8	119.8	934.4	46.6	363.5
80001-01	Step Installation (Total)	17.4	119.0	2070.4	46.6	811.1

Note: Lateral arms are given for right side installation. For installation on left side, lateral arms are negative.

Bell 206L Series / 407

Configuration 1 – Provisions Only		Weight (lbs)	Longitudinal		Lateral	
Part #	Name		Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
70102-01	Provisions Installation (407)	19.9	113.3	2255.3	11.7	233.6
70202-01	Provisions Installation (206L)					

Configuration 2 – Step and Provisions		Weight (lbs)	Longitudinal		Lateral	
Part #	Name		Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
	Provisions Installation	19.9	113.3	2255.3	11.7	233.6
80010-7475	Step	8.2	114.1	935.6	29.3	239.9
80001-01	Step Installation (Total)	28.1	113.6	3190.9	16.9	473.5

Configuration 3 – Step and Provisions (Stowed)		Weight (lbs)	Longitudinal		Lateral	
Part #	Name		Arm (in)	Moment (in-lbs)	Arm (in)	Moment (in-lbs)
	Provisions Installation	19.9	113.3	2255.3	11.7	233.6
80010-7475	Step	8.2	114.1	935.6	23.7	194.3
80001-01	Step Installation (Total)	28.1	113.6	3190.9	15.2	427.9

25-4 STRUCTURAL FASTENER DATA

Refer to Standard Practices Manual for torque values not listed in this ICA.

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
62302	Auxiliary Step Installation	1
ICA 623.91	Instructions for Continued Airworthiness	1
FABRICATION DOCUMENTS		
62340	Step Assembly	0
ENGINEERING DOCUMENTS		
ER623.01	Engineering Report	1
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>APPROVAL:</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <div style="text-align: right;"> <p>Transport Canada</p> <p>AIRCRAFT CERTIFICATION DIVISION</p> <p>APPROVED</p> <p>By <u>[Signature]</u></p> <p>Appr'l No. <u>5H00-48</u></p> <p>Appr'l Date <u>2000-12-08</u></p> <p>Issue No. <u>9</u></p> <p>Issue Date <u>2011-11-30</u></p> <p style="text-align: center; font-size: small;">YY-MM-DD</p> </div> </div> </div> <div style="width: 40%;"> <p>ORIGINAL DATE: 13 January, 2005</p> <p>REVISION DATE: 30 November 2010</p> </div> <div style="width: 30%; text-align: center;"> <p>AERO DESIGN LTD.</p> <p style="font-size: small;">2013 - 39th Ave NE Calgary, Alberta T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333</p> </div> </div>		
SHEET 1 OF 1		Bell 206B, 206L Series, 407 Auxiliary Step Installation
DCL623		Rev. 4

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 623.91

BELL 206B, 206L SERIES, 407

AUXILIARY STEP

Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Auxiliary Step assembled in accordance with AERO Design Ltd. Document Control List DCL623, Revision 4, or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 1
Date: 30 November, 2010

AERO Design Ltd.
Engineering Consultants

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RECORD OF REVISIONS

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0	May 5, 2010		Original Issue
1	Nov 20, 2010		

LIST OF EFFECTIVE PAGES

List of Revisions

Revision 0 (Original Issue)
Revision 1May 5, 2010
November 30, 2010

List of Effective Pages

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05-00-00	7-8	0
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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for rotorcraft embodying the Auxiliary Step as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Auxiliary Step. Requests for a copy may be made in writing to:

AERO Design Ltd.
2013 39th Avenue N.E.
Calgary, Alberta
T2E 6R7
Fax: 403-250-8333
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

0-5 GENERAL DESCRIPTION

The Auxiliary Step installation (62302-01) consists of a fitting attached to the fwd cross tube with a tube that sticks out fwd from the cross tube. The Auxiliary Step is installed to aid access to the helicopter cabin.

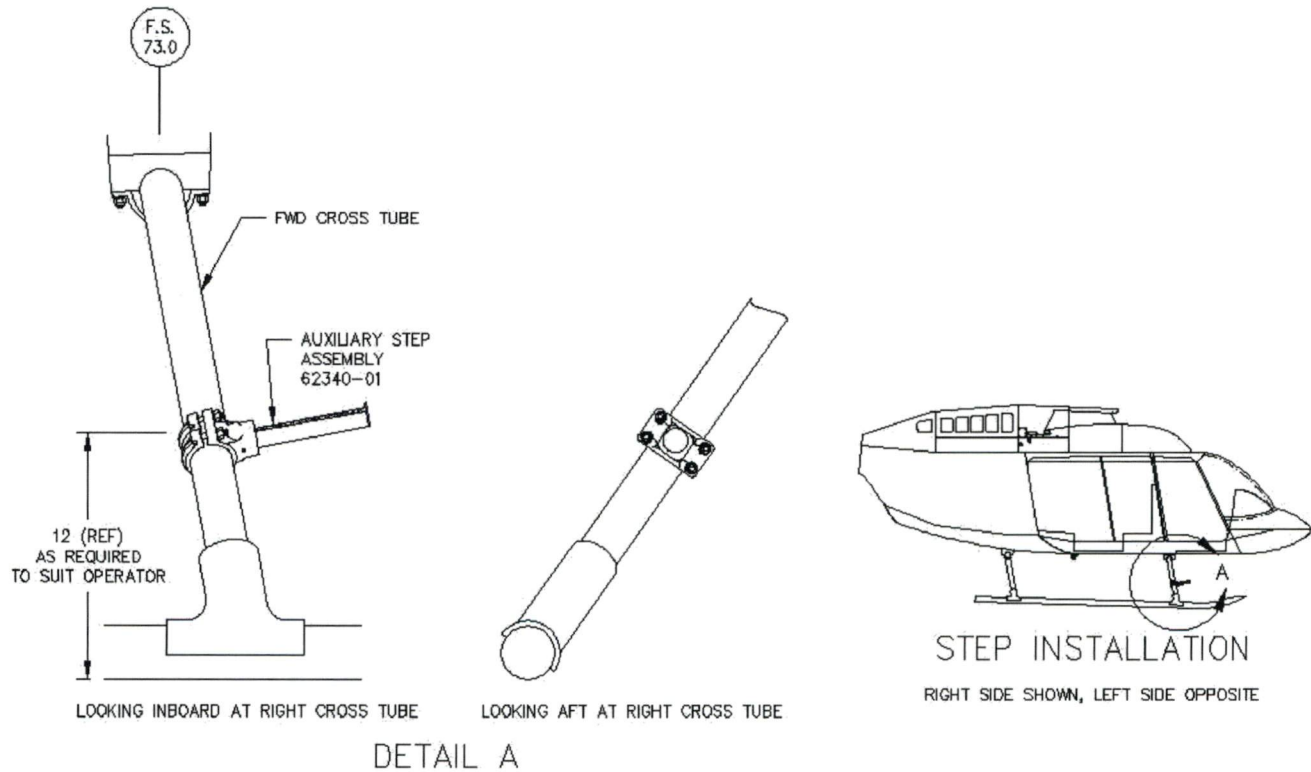


Figure 0-2 – Auxiliary Step Installation

CHAPTER 4 - AIRWORTHINESS LIMITATIONS

Transport Canada

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

FAA

The Airworthiness Limitations section is FAA approved and specifies maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

No additional airworthiness limitations have been imposed due the installation of the Auxiliary Step.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Auxiliary Step.

100 Hour or Annual Inspection

1. Inspection Area: Step
 - a) Visually inspect all mounting hardware for condition and security.
 - b) Visually inspect step for cracks, corrosion or other damage.
 - c) Visually inspect step tube attachment to socket fitting. Step tube must not be loose in socket.

Special Inspections

1. Following a hard landing inspect the Auxiliary Step installation in accordance with the 100 hour or annual inspection listed above.

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Auxiliary Step Assembly 62340

Part	Type of Damage	Max. Allowable	Repair
Step Tube	Corrosion	0.010" deep	Blend up to 0.010" deep with scotchbrite.
	Scratches / Nicks	0.010" deep x 0.5" long	Blend up to 0.010" deep with scotchbrite.
	Cracks	None	N/A
	Permanent bend	*Note	None
Fitting	Corrosion	0.030" deep	Blend up to 0.030" deep with scotchbrite.
	Scratches / Nicks	0.060" deep x 0.5" long	Blend up to 0.060" deep with scotchbrite.
	Cracks	None	N/A
	Elongation of socket hole	None	N/A

*Note: Minor bending of the step tube that does not cause the tube to become loose in the socket is acceptable.

5-3 PROTECTIVE TREATMENT INFORMATION

1. Step Assembly

The Step Assembly is supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint. The tread area is painted with anti-skid paint. If the anti-skid paint is damaged, touch up with Randolph X1567 Wingwalk grip paint or equivalent.

CHAPTER 25 – EQUIPMENT AND FURNISHINGS

The Auxiliary Step Installation may be applied to the right and/or left side of the helicopter.

25-1 STEP INSTALLATION

1. Locate Step Assembly 62340-01 on fwd cross tube. Fasten one side with AN4-14A Bolts (X2), AN960-416 Washers (X4), and MS21044N4 Nuts (X2); fasten opposite side with FT4F-175H T-Bolt (X2), AN960-416 Washers (X2), and MS21044N4 Nuts (X2). Rotate step until orientated forward. Torque nuts to 50-70 in-lbs.

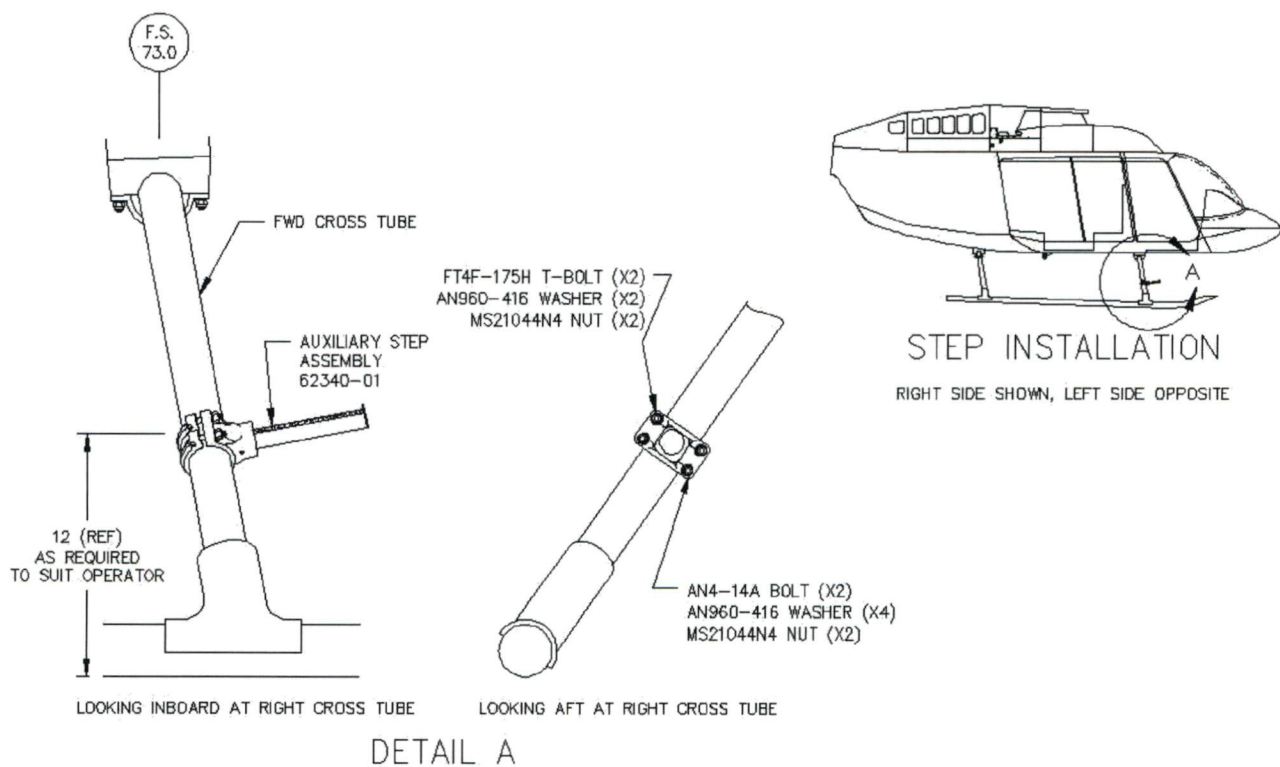


Figure 2 – Auxiliary Step Attachment Details

25-2 STEP REMOVAL

Refer to Figure 2.

1. Remove all AN4-14A Bolts, FT4F-175H T-Bolts, AN960-416 Washers, and MS21044N4 Nuts attaching Step Assembly to fwd cross tube. Remove Step Assembly.

25-3 WEIGHT AND BALANCE**Standard**

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
62302-01	Auxiliary Step Inst'n (Right)	1.0	68.6	68.6	42.1	42.1
62302-01	Auxiliary Step Inst'n (Left)	1.0	68.6	68.6	-42.1	-42.1


Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	Moment mm-kg
62302-01	Auxiliary Step Inst'n (Right)	0.45	1742	784	1069	481
62302-01	Auxiliary Step Inst'n (Left)	0.45	1742	784	-1069	-481

25-4 STRUCTURAL FASTENER DATA

Refer to Standard Practices Manual for torque values not listed in this ICA.

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
70401	Open Forward End Modification (Bell 206L/407 Fixed and McDonnell Douglas MD600N Quick Release Only)	1
70402	Lid Door Modification	1
70403	Auxiliary Latch Modification	4
70404	Open Forward End Modification (Bell 206L/407 Quick Release Only)	2
70405	Lid Step Modification	3
70406	Open Forward End Modification (Eurocopter AS350/AS355 and Bell 206B Quick Release Only)	2
70407	Open Forward End Modification (Eurocopter EC135 Quick Release Only)	0
70408	Installation, Hanger Wheel	0
70411	Open Forward End Modification (Bell 206L/407 Quick Release Only)	0
70412	Gas Spring Modification	0
70422	Gas Spring Provisions Modification	0
70428	Assembly, Hanger Wheel	0
70438	Parts, Hanger Wheel	0
ENGINEERING DOCUMENTS		
ER704.02	Engineering Report	0
APPROVAL:		
 <div style="display: inline-block; vertical-align: middle; text-align: left;"> <div style="display: flex; justify-content: space-between; width: 100%;"> Transport Canada Transports Canada </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u><i>[Signature]</i></u> Appr'l No. <u>SH00-48</u> Appr'l Date <u>2000-12-08</u> Issue No. <u>9</u> Issue Date <u>2011-11-30</u> YY-MM-DD </div> </div>		
ORIGINAL DATE: 10 May 2006 REVISION DATE: 27 October 2011		AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
SHEET 1 OF 1		Cargo Basket Modifications
DCL704		Rev. 7

United States of America
Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

IMPORT

Number SR02253NY

This certificate issued to Aero Design Ltd.
2013-39th Avenue NE
Calgary, Alberta, T2E 6R7
Canada

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified herein meets the airworthiness requirements of Part 27 of the Federal Aviation Regulations.

Original Product -- Type Certificate Number: H2SW

Make: Bell Helicopter Textron Canada Limited

Model: 206L, 206L-1, 206L-3, 206L-4, 407

Description of Type Design Change:

The installation of Cargo Basket, External Attachment Provisions, Auxiliary Step and Quick Release Step for:

I. Bell 407 Only

1. **407 Configuration A-External Attachment Provisions Only:** Installation of External Attachment Provisions to be done in accordance with Aero Design Ltd. Document Control List, DCL 700, Revision 1 dated September 22, 2007, or later Transport Canada approved revision.

(Description of Type Design Change continued on page 2 of 5)

Limitations and Conditions:

I. Bell 407 Only

1. **407 Configuration A-External Attachment Provisions Only:**

- a. Operation must be in accordance with Aero Design Ltd. Flight Manual Supplement, FMS 700.91, Revision 0 dated May 4, 2006, Transport Canada approved June 9, 2006, or later Transport Canada approved revision.
- b. Instructions for Continued Airworthiness described in Aero Design Ltd. Instructions for Continued Airworthiness ICA 700.90, Revision 0 dated May 3, 2006, Transport Canada accepted June 9, 2006, or later Transport Canada accepted revisions are required for this installation.
- c. External Attachment Provisions installed in accordance with DCL700 may remain installed if the basket installation is removed.

(Limitations and Conditions continued on page 3 of 5)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: August 9, 2004

Date reissued:

Date of issuance: April 19, 2006

Date amended: April 1, 2011, August 6, 2012



By direction of the Administrator

[Signature]
(Signature)

Raymond Reinhardt
Acting Manager
New York Aircraft Certification Office

(Title)

BELL MEDIUM

BELL MED
CAN. STC



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Aero Design Ltd.
2013 39th Avenue North East
Calgary, Alberta
Canada T2E 6R7

Number: SH07-56

Issue No.: 2

Approval Date: December 24, 2007

Issue Date: September 30, 2008

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

BELL 205A-1, 212, 412, 412 CF, 412 EP

Canadian Type Certificate or Equivalent:

H-86, H1SW

Description of Type Design Change:

Installation of Quick Release Mounting Provisions/Cargo Basket/Step on the right side or the left hand side of the helicopter.

**Installation/Operating Data,
Required Equipment and Limitations:**

Configuration A - Quick Release Mounting Provisions:

Installation of Quick Release Mounting Provisions to be accomplished in accordance with Transport Canada Civil Aviation (TCCA) approved Aero Design Ltd., Document Control List DCL751-1, Revision 1, dated 15 September 2008, or later TCCA approved revision.

Quick Release Mounting Provisions may remain installed if any other configuration is removed.

Configuration B - Quick Release Cargo Basket Installation:

Installation of Configuration A - Quick Release Mounting Provisions is a mandatory prerequisite for installation of Configuration B. Installation of Quick Release Cargo Basket to be completed in accordance with TCCA approved, AERO Design Ltd. Document Control List, DCL751-1, Revision 1, dated 15 September 2008, or later approved revision.

...See Continuation Sheet

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.



D.S. Austen
For Minister of Transport

United States of America
Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

IMPORT

Number SR02730NY

This certificate issued to Aero Design Ltd.
2013 - 39th Avenue North East
Calgary, Alberta, T2E 6R7
Canada

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified herein meets the airworthiness requirements of Part 7/29 of the Civil Air/Federal Aviation Regulations.

Original Product -- Type Certificate Number : *

Make : *

*See attached FAA Approved Model List (AML) No. SR02730NY for a list of approved models and applicable airworthiness regulations.

Model : *

Description of Type Design Change:

Configuration A - Quick Release Mounting Provisions:

Installation of Quick Release Mounting Provisions on the right or left side in accordance with AERO Design Ltd. Installation Document 75102 Revision 0, as listed in Document Control List DCL751-1 Revision 1, dated September 15, 2008. TCCA approved September 30, 2008, or later TCCA approved revisions.

(See Continuation Sheet 2 of 2)

Limitations and Conditions:

1. Installation of Configuration A is a prerequisite for the installation of Configuration B.
2. Installation of Configuration A is a prerequisite for the installation of Configuration C.
3. Configuration A may remain installed on aircraft when Configuration B or C is removed.
4. Eligibility limitations of cargo basket modifications are noted on the drawings listed in AERO Design Ltd. Document Control List DCL704 Revision 3, dated July 31, 2008.

(See Continuation Sheet 2 of 2)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application : March 19, 2009

Date reissued :

Date of issuance : September 11, 2009

Date amended :



By direction of the Administrator

[Signature]
(Signature)

Anthony Socias
Manager
New York Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.


SMALL
BASKET

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
75101	Quick Release Cargo Basket Installation	1
75102	Quick Release Provisions Installation	0
ICA751.90	Instructions for Continued Airworthiness	0
FMS751.91	Flight Manual Supplement	1
FABRICATION DOCUMENTS		
DCL751-2	Document Control List for Quick Release Cargo Basket	0
DCL751-3	Document Control List for Beams	1
ENGINEERING DOCUMENTS		

APPROVAL: <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <div style="display: inline-block; text-align: center;"> Transport Canada </div> <div style="display: inline-block; text-align: center;"> Transport Canada </div> </div> <div style="margin-top: 10px;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u><i>D.S. Austin</i></u> Appr'l No. <u>5407-86</u> Appr'l Date <u>07-12-24</u> Issue No. <u>2</u> Issue Date <u>08-09-30</u> <small>YY-MM-DD</small> </div>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"> ORIGINAL DATE: 6 September, 2007 REVISION DATE: 15 September, 2008 </td> <td style="width: 70%;"> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </td> </tr> <tr> <td style="text-align: center;">SHEET 1 OF 1</td> <td style="text-align: center;"> Bell 205A-1 / 212 / 412 Quick Release Cargo Basket Installation </td> </tr> <tr> <td colspan="2" style="text-align: center;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="font-size: 2em; font-weight: bold;">DCL751-1</div> <div style="text-align: right;"> Rev. <div style="font-size: 3em; font-weight: bold;">1</div> </div> </div> </td> </tr> </table>	ORIGINAL DATE: 6 September, 2007 REVISION DATE: 15 September, 2008	AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333	SHEET 1 OF 1	Bell 205A-1 / 212 / 412 Quick Release Cargo Basket Installation	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="font-size: 2em; font-weight: bold;">DCL751-1</div> <div style="text-align: right;"> Rev. <div style="font-size: 3em; font-weight: bold;">1</div> </div> </div>	
ORIGINAL DATE: 6 September, 2007 REVISION DATE: 15 September, 2008	AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333							
SHEET 1 OF 1	Bell 205A-1 / 212 / 412 Quick Release Cargo Basket Installation							
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="font-size: 2em; font-weight: bold;">DCL751-1</div> <div style="text-align: right;"> Rev. <div style="font-size: 3em; font-weight: bold;">1</div> </div> </div>								

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
75115	Forward Beam Assembly	0
75116	Aft Beam Assembly	0
75130	Forward Beam	0
75131	Aft Beam	0
75132	Tube Assembly	1
ENGINEERING DOCUMENTS		
ER751.01	Engineering Report	0
TR751.02	Test Report	0
<div> <div> <p>APPROVAL:</p>  <p>Transport Canada Transports Canada</p> <p>AIRCRAFT CERTIFICATION DIVISION</p> <p>APPROVED</p> <p>By <u>D.S. Austin</u></p> <p>App'l No. <u>SH07-56</u></p> <p>App'l Date <u>07-12-24</u></p> <p>Issue No. <u>2</u></p> <p>Issue Date <u>08-09-30</u></p> <p>YY-MM-DD</p> </div> <div> <p>ORIGINAL DATE:</p> <p>6 September, 2007</p> <p>REVISION DATE:</p> <p>15 September, 2008</p> </div> <div> <p>AERO DESIGN LTD.</p> <p>2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7</p> <p>Ph. (403) 250-8027</p> <p>Fax. (403) 250-8333</p> </div> </div>		
SHEET 1 OF 1		<p>Bell 205A-1 / 212 / 412</p> <p>Quick Release Mounting Beams</p>
DCL751-3		<p>Rev.</p> <p>1</p>

BELL 205A-1 / 212 / 412

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT
for the
INSTALLATION of the AERO DESIGN
QUICK RELEASE CARGO BASKET
AND/OR QUICK RELEASE STEP

Supplemental Type Certificate No. SH07-56

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 205A-1 / 212 / 412 when fitted with the Quick Release Cargo Basket or Step Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



Table of Contents

I	Limitations	3
II	Normal Procedures	3
III	Emergency Procedures	3
IV	Performance	3
V	Weight and Balance	4
VI	Installation / removal instructions	6

Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By
0	07 Sept, 2007	None		
1	16 July, 2008	All		

I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Quick Release Cargo Basket is 300 lb. (135.7 kg).
2. Only one basket may be installed on the helicopter, on the right or left side.
3. Flight operations limited to VFR conditions with AERO Design Ltd. Quick Release Cargo Basket installed.
4. V_{NE} is unchanged from the basic rotorcraft.
5. Quick Release Step may be installed on the right and/or left side when the basket is removed. Installation on both sides is approved.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - c) Ensure the basket is locked in position on the beams. Pull up on the forward and aft end of the basket to check.
 - d) Ensure the step is locked in position on the beams. Pull up on the forward and aft end of the step to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

IV PERFORMANCE

1. Cruise performance and range will be reduced by approximately 10 percent with the Cargo Basket installed.
2. Climb performance will be reduced by up to 150 fpm with the Cargo Basket installed.

V WEIGHT AND BALANCE

1. The following weight and balance is for the low mounted quick release cargo basket configuration, installed in accordance with drawing 75101.

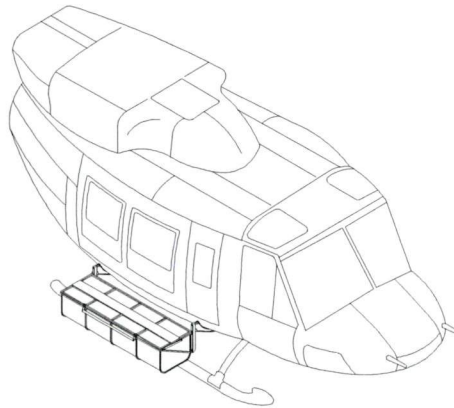


Figure 1 – Quick Release Cargo Basket Configuration

Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Basket Only ¹	49.5 lb	119.5 in	5 915 in*lb	+/- 62.2 in	+/- 3 079 in*lb
	22.4 kg	3035 mm	67 979 mm*kg	+/- 1580 mm	+/- 35 389 mm*kg
Cargo ² (MAX)	300 lb	119.5 in	35 850 in*lb	+/- 62.2 in	+/- 18 660 in*lb
	135.7 kg	3035 mm	411 991 mm*kg	+/- 1580 mm	+/- 214 480 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

2. The following weight and balance is for the quick release step configuration, installed in accordance with drawing 80001.

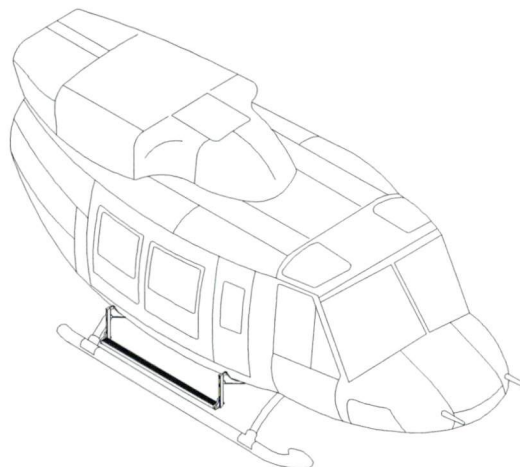


Figure 2 – Quick Release Step Configuration

Quick Release Step Configuration

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Step Only ¹	7.8 lb	119.8 in	934 in*lb	+/- 52.2 in	+/- 407 in*lb
	3.5 kg	3043 mm	10 650 mm*kg	+/- 1326 mm	+/- 4 641 mm*kg

¹ Weight and balance is for Step only. Mounting beams are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The Quick Release Mounting Beams are installed in accordance with drawing 75102. The Quick Release Basket is installed in accordance with drawing 75101. The Quick Release Step is installed in accordance with drawing 80001. Removal of the basket or step leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket or step and which weight and balance amendment is in effect is required.

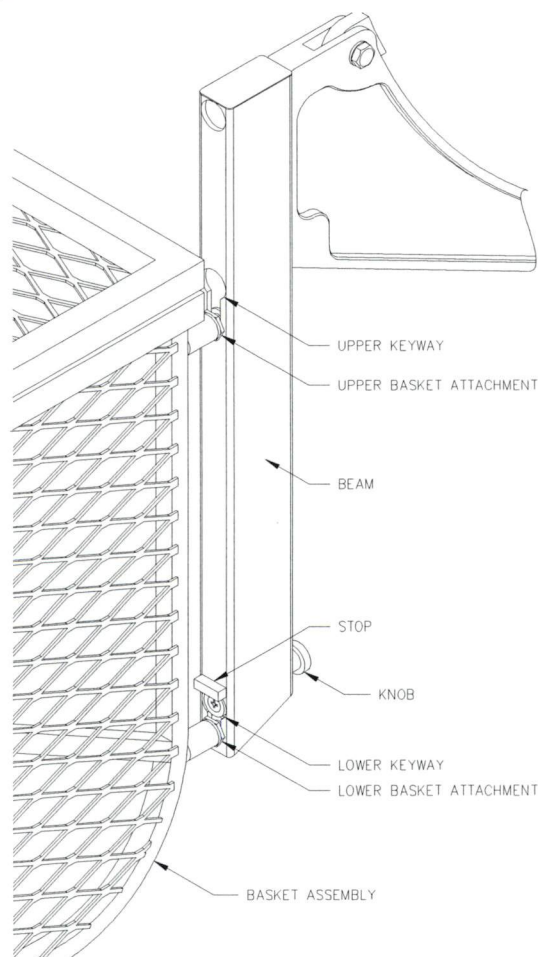


Figure 3 – Basket Attachment

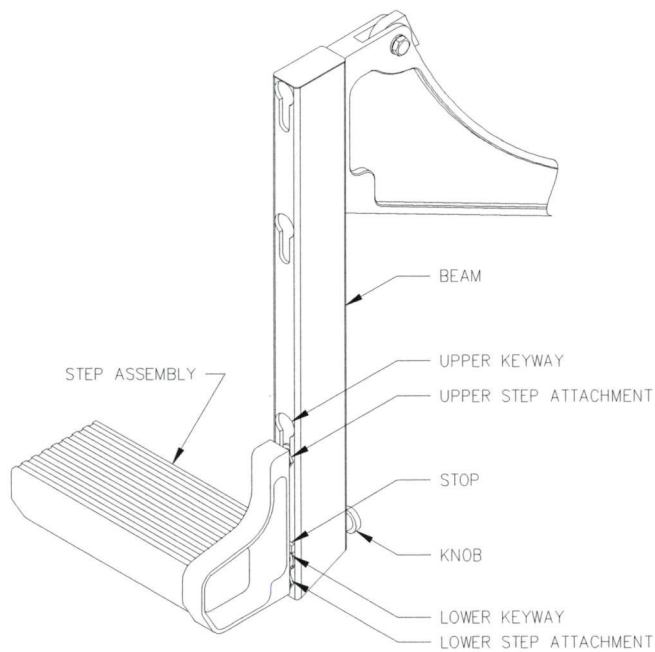


Figure 4 – Step Attachment

Installation and removal instructions are the same for the Quick Release Basket and Quick Release Step Assembly.


1. Installation - Refer to Figure 3/4.
 1. Set upper attachment into upper keyway on forward and aft beams.
 2. At forward end, lift basket or step until lower attachment fitting hits stop over keyway. Push fitting into keyway and slide down until locked. Repeat for aft end.
2. Removal - Refer to Figure 3/4.
 1. Pull knob at bottom end of forward beam and lift basket or step until lower attachment fitting is free of keyway. Keep upper attachment in keyway in beam. Repeat for aft end.
 2. Lift basket or step until upper attachments are out of keyways in beams and remove from helicopter.

STEP

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
80001	Quick Release Step Installation	0
ICA800.90	Instructions for Continued Airworthiness	0
FMS751.91	Flight Manual Supplement	1
FABRICATION DOCUMENTS		
DCL800-11	Document Control List for Quick Release Step	0
ENGINEERING DOCUMENTS		
<div> <div> <p>APPROVAL:</p>  <p>Transport Canada</p> <p>AIRCRAFT CERTIFICATION DIVISION</p> <p>APPROVED</p> <p>By <u>D. S. Austin</u></p> <p>Appr'l No. <u>SW07-56</u></p> <p>Appr'l Date <u>07-12-24</u></p> <p>Issue No. <u>2</u></p> <p>Issue Date <u>08-09-30</u></p> <p>YY-MM-DD</p> </div> <div> <p>ORIGINAL DATE:</p> <p>15 September, 2008</p> <p>REVISION DATE:</p> </div> <div> <p>AERO DESIGN LTD.</p> <p>2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7</p> <p>Ph. (403) 250-8027</p> <p>Fax. (403) 250-8333</p> <p>www.aerodesign.ca</p> </div> </div>		
SHEET 1 OF 1		<p>Bell 205A-1 / 212 / 412</p> <p>Quick Release Step</p> <p>Installation</p>
DCL800-1		<p>Rev.</p> <p>0</p>

DOCUMENT CONTROL LIST



DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
80010 80020	Step Assembly Step End Fabrication	0 0
ENGINEERING DOCUMENTS		
ER800.01	Engineering Report	0
<div> <div> <p>APPROVAL:</p>  </div> <div> <p>ORIGINAL DATE: 15 September, 2008</p> <p>REVISION DATE:</p> </div> <div> <p>AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 www.aerodesign.ca</p> </div> </div>		
<p>SHEET 1 OF 1</p>		<p>Bell 205A-1 / 212 / 412 Quick Release Step Fabrication</p>
<p>DCL800-11</p>		<p>Rev. 0</p>

LARGE
BASKET

MODS.

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
70401	Open Forward End Modification (Bell 206L/407 Fixed and McDonnell Douglas MD600N Quick Release Only)	1
70402	Lid Door Modification	1
70403	Auxiliary Latch Modification	3
70404	Open Forward End Modification (Bell 206L/407 Quick Release Only)	1
70405	Lid Step Modification	2
70406	Open Forward End Modification (Eurocopter AS350/AS355 and Bell 206B Quick Release Only)	0
70407	Open Forward End Modification (Eurocopter EC135 Quick Release Only)	0
70408	Installation, Hanger Wheel	0
70428	Assembly, Hanger Wheel	0
70438	Parts, Hanger Wheel	0
ENGINEERING DOCUMENTS		
ER704.02	Engineering Report	0

APPROVAL  Transport Canada E. BURGAIN DAR 280M APPROVED By  Appl'd No. <u>SHO7-56</u> Appl'd Date <u>24 Dec 2007</u> Issue No. <u>2</u> Issue Date <u>30 Sept 2008</u> THIS DCL APPROVED 29 APR 2010	ORIGINAL DATE: 10 May 2006 REVISION DATE: April 29, 2010	AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	SHEET 1 OF 1	Cargo Basket Modifications
	DCL704	Rev. 6

AS350
CAN. STC

Basket Length	Basket Assembly P/N	Provisions Position	Provisions Installation P/N	Basket Installation P/N	Notes
Short	77610-01	Low RH	78602-01-01	77601-01-01	Required with DART pod
		High RH	78602-02-01	77601-02-01	Standard
		ECL Pod Compatible RH	78603-01-01	77601-03-01	Required with ECL or DART pod
	77610-01	Low LH	78602-01-02	77601-01-02	Required with DART pod
		High LH	78602-02-02	77601-02-02	Standard
		ECL Pod Compatible LH	78603-01-02	77601-03-02	Required with ECL or DART pod
Medium	76410-01-01	Low RH	78602-01-01	76401-01-01	Required with DART pod
		High RH	78602-02-01	76401-02-01	Standard
		ECL Pod Compatible RH	78603-01-01	76401-03-01	Required with ECL or DART pod
	76410-01-02	Low LH	78602-01-02	76401-01-02	Required with DART pod
		High LH	78602-02-02	76401-02-02	Standard
		ECL Pod Compatible LH	78603-01-02	76401-03-02	Required with ECL or DART pod
Long	78410-01	Low RH	78602-01-01	78401-01-01	Required with DART pod
		High RH	78602-02-01	78401-02-01	Standard
		ECL Pod Compatible RH	78603-01-01	78401-03-01	Required with ECL or DART pod
	78410-01	Low LH	78602-01-02	78401-01-02	Required with DART pod
		High LH	78602-02-02	78401-02-02	Standard
		ECL Pod Compatible LH	78603-01-02	78401-03-02	Required with ECL or DART pod
Basket Options					
Lid Step (Walkway)				70405-01	
Front End Cutout				70406-01	
Hangar Wheel				70408-01	
Steps				Installation P/N	
Short Cabin Step		Right or Left	82706-01		
Long Cabin Step		Right or Left	82705-01	Not compatible with long basket	
Full Length Step		Right or Left	82709-01	Not compatible with any basket	
Quick Release Maintenance Step, Right or Left			82701-01		
Maintenance Peg Step		Right or Left	82707-01	Not compatible with basket provisions	
Short Cabin Step - With RH Commuter Step				82750-01-01	
Short Cabin Step - With LH Commuter Step				82750-01-02	
Long Cabin Step - With RH Commuter Step				82751-01-01	
Long Cabin Step - With LH Commuter Step				82751-01-02	
Full Length Cabin Step - With RH Commuter Step				82752-01-01	
Full Length Cabin Step - With LH Commuter Step				82752-01-02	



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Aero Design Ltd.
2013 39th Avenue North East
Calgary, Alberta
Canada T2E 6R7

Number: SH08-16

Issue No.: 4

Approval Date: April 11, 2008

Issue Date: November 23, 2011

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

EUROCOPTER AS 350 B, AS 350 B1, AS 350 B2, AS 350 B3,
AS 350 BA, AS 350 D, AS 350 D1
EUROCOPTER FRANCE AS 355 E, AS 355 F, AS 355 F1, AS
355 F2, AS 355 N, AS 355 NP

Canadian Type Certificate or Equivalent:

H-83 (AS350 Series), H-87 (AS355 Series)

Description of Type Design Change:

Installation of External Attachment Provisions and Cargo
Basket.

**Installation/Operating Data,
Required Equipment and Limitations:**

Configuration A – External Attachment Provisions Only:

Installation of the External Attachment Provisions to be completed in accordance with Transport Canada approved, AERO Design Ltd. Document Control List, DCL786-1, Revision 3, dated 16 June 2010, or later approved revision.

External Attachment Provisions installed in accordance with DCL786-1 may remain installed if the basket installation is removed.

Configuration B – External Cargo Basket (Short Basket):

Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration B, External Cargo Basket Installation. Installation of Quick Release Cargo Basket to be completed in accordance with Transport Canada approved, AERO Design Ltd. Document Control List, DCL776-1, Revision 3, dated 16 June 2010, or later approved revision. ...See Continuation Sheet

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.



F.J.B. Wright
For Minister of Transport

AS350 & AS355 SERIES HELICOPTERS

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

for the

INSTALLATION of the AERO DESIGN
QUICK RELEASE CARGO BASKET

CARGO BASKET MODELS:

76401, 77601, 78401, 94001

TCCA Supplemental Type Certificate No. SH08-16
FAA Supplemental Type Certificate No. SR02680NY

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory. Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Eurocopter AS350 and AS355 Series Helicopters when fitted with the Quick Release Cargo Basket Installation and/or Quick Release Maintenance Step Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement refer to the Approved Flight Manual and other approved Flight Manual Supplements.


	Transport Canada	Transports Canada
AIRCRAFT CERTIFICATION DIVISION		
APPROVED		
By		
Appr'l No.	SH08-16	
Appr'l Date	2011-11-23	
Issue No.	4	
Issue Date	2011-11-23	
YY - MM - DD		

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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By
0	25 Feb, 2008	None		
1	29 Jan, 2010	All		
2	16 June 2010	1, 2, 4-14		
3	4 Nov, 2011	All		

I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Quick Release Cargo Baskets, model 776 & 940 is 300 lb. (136 kg).

The maximum load in the AERO Design Ltd. Quick Release Cargo Baskets, models 764 & 784 is 250 lb. (113 kg).

2. The Aero Design Quick Release Cargo Basket may be installed on the left side, the right side or both sides.
3. Flight operations limited to VFR conditions with AERO Design Ltd. Quick Release Cargo Basket installed.
4. V_{NE} is unchanged from the basic rotorcraft.
5. AS355NP only: For Category A operations, the basket must be removed. Mounting provisions may be left in place.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - c) Ensure the basket is locked in position on the beams. Pull up on the forward end of the basket to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

IV PERFORMANCE

One Cargo Basket Installed (Left or Right Side):

1. Cruise performance and range will be reduced by approximately 10 percent.
2. AEO climb performance will be reduced by up to 150 fpm.
3. OEI climb performance (AS355 only) will be reduced by up to 100 fpm.

Two Cargo Baskets Installed:

4. Cruise performance and range will be reduced by approximately 20 percent.
5. AEO climb performance will be reduced by up to 300 fpm.
6. OEI climb performance (AS355 only) will be reduced by up to 200 fpm.

V WEIGHT AND BALANCE

This section contains weight and balance information for cargo basket models 76401, 77601, 78401, and 94001. Each model has multiple configurations. Refer to the weight and balance information applicable to model and configuration installed.

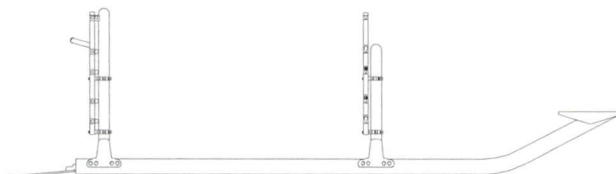
Longitudinal and Lateral moment arms for Cargo are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

1. Configuration 786 – Mounting Provisions Only

The following weight and balance is for the mounting provisions installed in accordance with drawing 78602 or 78603 as applicable.



Standard

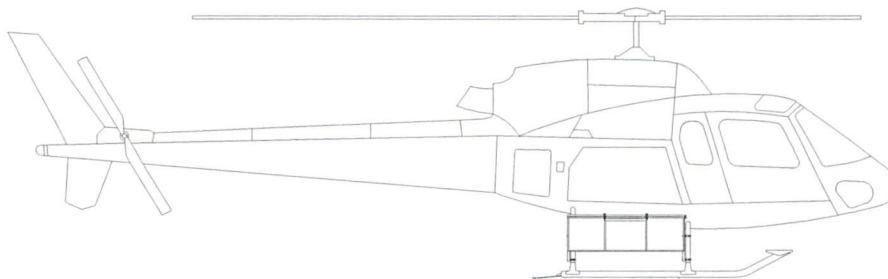
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78602-01-01	Low Right Hand Provisions	6.4	135.6	866.0	37.2	238.0
78602-02-01	High Right Hand Provisions	6.4	135.6	866.0	36.5	233.8
78603-01-01	Right Hand Eurocopter Pod Compatible Provisions	6.8	135.4	921.0	38.8	263.6
78602-01-02	Low Left Hand Provisions	6.4	135.6	866.0	-37.2	-238.0
78602-02-02	High Left Hand Provisions	6.4	135.6	866.0	-36.5	-233.8
78603-01-02	Left Hand Eurocopter Pod Compatible Provisions	6.8	135.4	921.0	-38.8	-263.6

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78602-01-01	Low Right Hand Provisions	2.9	3443.0	9970.6	944.6	2735.4
78602-02-01	High Right Hand Provisions	2.9	3443.0	9970.6	928.1	2687.6
78603-01-01	Right Hand Eurocopter Pod Compatible Provisions	3.1	3440.1	10584.8	984.6	3029.6
78602-01-02	Low Left Hand Provisions	2.9	3443.0	9970.6	-944.6	-2735.4
78602-02-02	High Left Hand Provisions	2.9	3443.0	9970.6	-928.1	-2687.6
78603-01-02	Left Hand Eurocopter Pod Compatible Provisions	3.1	3440.1	10584.8	-984.6	-3029.6

2. Configuration 776 (Short Basket)

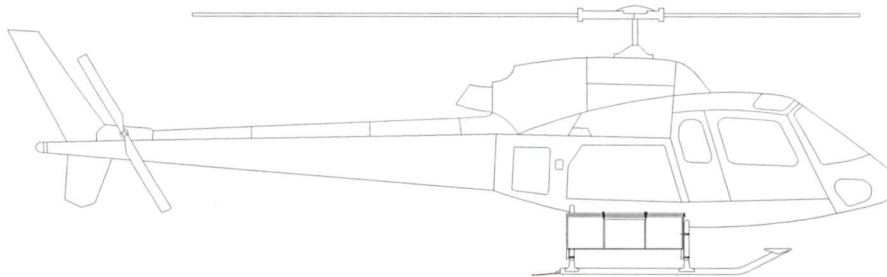
The following weight and balance is for cargo baskets installed in accordance with drawing 77601.



Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
77601-01-01	Low Right Hand Installation	41.4	135.9	5627.5	45.9	1900.5
77601-02-01	High Right Hand Installation	41.4	135.9	5627.5	45.1	1868.3
77601-03-01	Eurocopter Pod Compatible Right Hand Installation	41.8	135.9	5681.0	47.8	1996.1
	Maximum Cargo (RH)	300.0	135.9	40770.0	*	*
77601-01-02	Low Left Hand Installation	41.4	135.9	5627.5	-45.9	-1900.5
77601-02-02	High Left Hand Installation	41.4	135.9	5627.5	-45.1	-1868.3
77601-03-02	Eurocopter Pod Compatible Left Hand Installation	41.8	135.9	5681.0	-47.8	-1996.1
	Maximum Cargo (LH)	300.0	135.9	40770.0	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

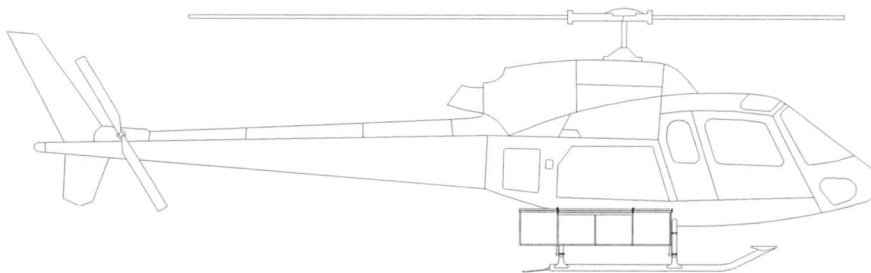


P/N	Description	Metric				
		Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
77601-01-01	Low Right Hand Installation	18.7	3452.6	5627.5	1166.0	21842.9
77601-02-01	High Right Hand Installation	18.7	3452.6	5627.5	1146.3	21473.2
77601-03-01	Eurocopter Pod Compatible Right Hand Installation	18.9	3452.6	5681.0	1212.9	22941.6
	Maximum Cargo (RH)	135.7	3452.6	468768.7	*	*
77601-01-02	Low Left Hand Installation	18.7	3452.6	5627.5	-1166.0	-21842.9
77601-02-02	High Left Hand Installation	18.7	3452.6	5627.5	-1146.3	-21473.2
77601-03-02	Eurocopter Pod Compatible Left Hand Installation	18.9	3452.6	5681.0	-1212.9	-22941.6
	Maximum Cargo (LH)	135.7	3452.6	468768.7	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

3. Configuration 764 (Medium Basket)

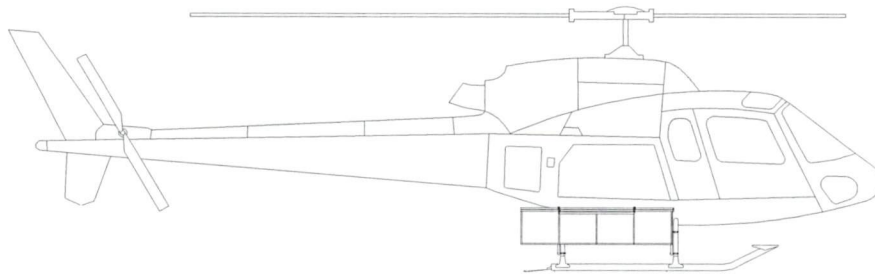
The following weight and balance is for cargo baskets installed in accordance with drawing 76401.



Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
76401-01-01	Low Right Hand Installation	51.4	144.0	7401.5	46.7	2402.5
76401-02-01	High Right Hand Installation	51.4	144.0	7401.5	46.0	2362.3
76401-03-01	Eurocopter Pod Compatible Right Hand Installation	51.8	143.9	7455.0	48.6	2518.1
	Maximum Cargo (RH)	250.0	144.0	36000.0	*	*
76401-01-02	Low Left Hand Installation	51.4	144.0	7401.5	-46.7	-2402.5
76401-02-02	High Left Hand Installation	51.4	144.0	7401.5	-46.0	-2362.3
76401-03-02	Eurocopter Pod Compatible Left Hand Installation	51.8	143.9	7455.0	-48.6	-2518.1
	Maximum Cargo (LH)	250.0	144.0	36000.0	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

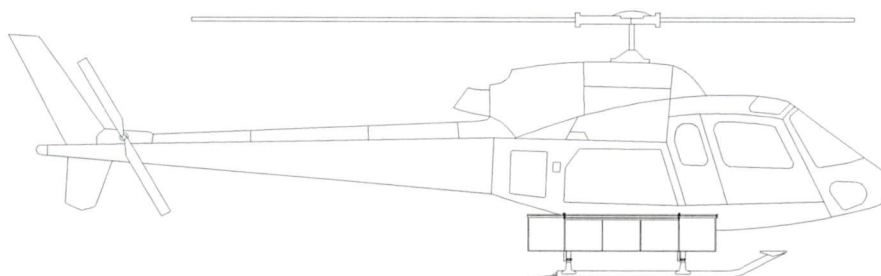


P/N	Description	Metric				
		Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
76401-01-01	Low Right Hand Installation	23.3	3657.6	85067.2	1187.2	27612.4
76401-02-01	High Right Hand Installation	23.3	3657.6	85067.2	1167.4	27150.9
76401-03-01	Eurocopter Pod Compatible Right Hand Installation	23.4	3655.5	85681.4	1234.7	28941.1
	Maximum Cargo (RH)	113.1	3657.6	413674.6	*	*
76401-01-02	Low Left Hand Installation	23.3	3657.6	85067.2	-1187.2	-27612.4
76401-02-02	High Left Hand Installation	23.3	3657.6	85067.2	-1167.4	-27150.9
76401-03-02	Eurocopter Pod Compatible Left Hand Installation	23.4	3655.5	85681.4	-1234.7	-28941.1
	Maximum Cargo (LH)	113.1	3657.6	413674.6	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

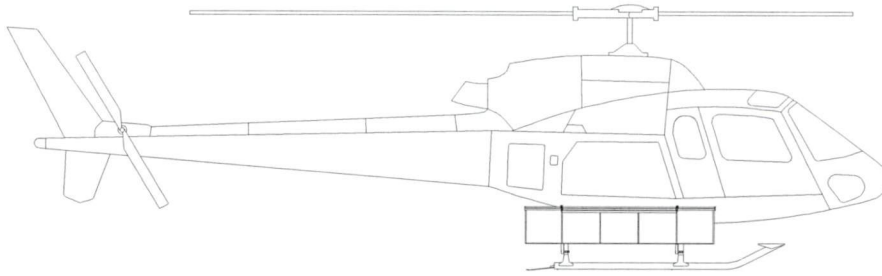
4. Configuration 784 (Long Basket).

The following weight and balance is for cargo baskets installed in accordance with drawing 78401.



Standard						
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78401-01-01	Low Right Hand Installation	63.9	136.0	8687.5	47.4	3026.8
78401-02-01	High Right Hand Installation	63.9	136.0	8687.5	46.6	2976.6
78401-03-01	Eurocopter Pod Compatible Right Hand Installation	64.3	135.9	8741.0	49.3	3167.4
	Maximum Cargo (RH)	250.0	136.0	34000.0	*	*
78401-01-02	Low Left Hand Installation	63.9	136.0	7401.5	-47.4	-3026.8
78401-02-02	High Left Hand Installation	63.9	136.0	7401.5	-46.6	-2976.6
78401-03-02	Eurocopter Pod Compatible Left Hand Installation	64.3	135.9	7455.0	-49.3	-3167.4
	Maximum Cargo (LH)	250.0	136.0	34000.0	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

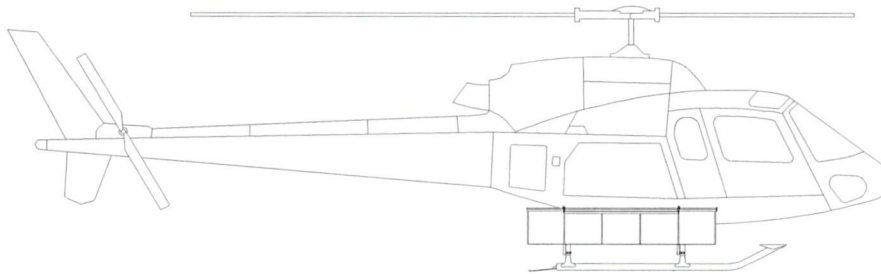


P/N	Description	Metric				
		Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78401-01-01	Low Right Hand Installation	28.9	3453.3	99847.5	1203.1	34787.1
78401-02-01	High Right Hand Installation	28.9	3453.3	99847.5	1183.2	34210.6
78401-03-01	Eurocopter Pod Compatible Right Hand Installation	29.1	3452.9	100461.7	1251.2	36403.3
	Maximum Cargo (RH)	113.1	3453.3	390568.2	*	*
78401-01-02	Low Left Hand Installation	28.9	3453.3	99847.5	-1203.1	-34787.1
78401-02-02	High Left Hand Installation	28.9	3453.3	99847.5	-1183.2	-34210.6
78401-03-02	Eurocopter Pod Compatible Left Hand Installation	29.1	3452.9	100461.7	-1251.2	-36403.3
	Maximum Cargo (LH)	113.1	3453.3	390568.2	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

5. Configuration 940 (Extra-Long Basket).

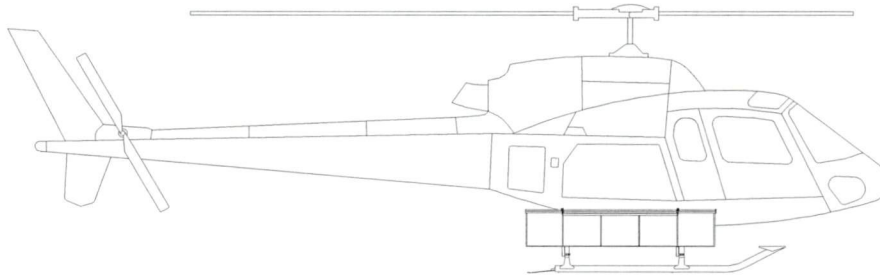
The following weight and balance is for cargo baskets installed in accordance with drawing 94001.



Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
94001-01-01	Low Right Hand Installation	71.2	136.0	9680.3	48.2	3432.6
94001-02-01	High Right Hand Installation	71.2	136.0	9680.3	47.5	3383.1
94001-03-01	Eurocopter Pod Compatible Right Hand Installation	71.6	135.9	9733.8	50.2	3594.3
Maximum Cargo (RH)		300.0	136.0	40,800.0	*	*
94001-01-02	Low Left Hand Installation	71.2	136.0	9680.3	-48.2	-3432.6
94001-02-02	High Left Hand Installation	71.2	136.0	9680.3	-47.5	-3383.1
94001-03-02	Eurocopter Pod Compatible Left Hand Installation	71.6	135.9	9733.8	-50.2	-3594.3
Maximum Cargo (LH)		300.0	136.0	40,800.0	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.



P/N	Description	Metric				
		Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
94001-01-01	Low Right Hand Installation	32.2	3453.4	111258	1224.6	39452.1
94001-02-01	High Right Hand Installation	32.2	3453.4	111258	1206.9	38882.9
94001-03-01	Eurocopter Pod Compatible Right Hand Installation	32.4	3453.0	111872	1275.1	41310.3
	Maximum Cargo (RH)	135.7	3453.4	468,572	*	*
94001-01-02	Low Left Hand Installation	32.2	3453.4	111258	-1224.6	-39452.1
94001-02-02	High Left Hand Installation	32.2	3453.4	111258	-1206.9	-38882.9
94001-03-02	Eurocopter Pod Compatible Left Hand Installation	32.4	3453.0	111872	-1275.1	-41310.3
	Maximum Cargo (LH)	135.7	3453.4	468,572	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

VI INSTALLATION / REMOVAL INSTRUCTIONS

Cargo Baskets

The beams are installed in accordance with drawing 78602 or 78603 as applicable. The basket is installed in accordance with drawing 76401, 77601, 78401 or 94001, as applicable. Removal of the basket leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket and which weight and balance amendment is in effect is required when basket is installed or removed.

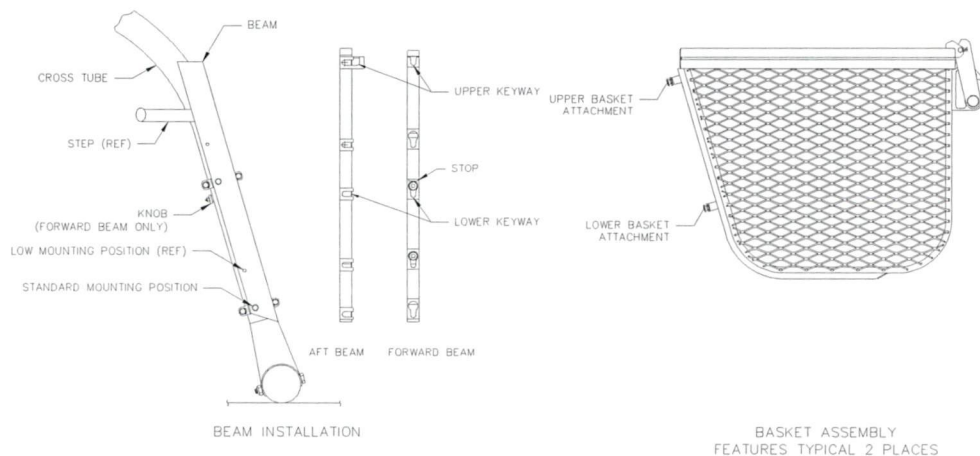


Figure 1 – Basket Attachment Features (Low beam installation shown. Beam attachment features typical for low and high beam installations)

6. Installation - Refer to Figure 1 and Figure 2.

- a) Set basket upper aft basket attachment into upper keyway in aft beam. Forward end of basket may rest on floor.
- b) Lift basket from forward end, slide lower aft attachment into keyway on aft beam.
- c) At forward attachment hoop, lift basket until lower attachment fitting hits stop.
- d) Push fitting into keyway and slide basket down until locked.

2. Removal - Refer to Figure 1 and Figure 2.

- a) Pull knob at bottom end of forward beam and lift basket until attachment fittings are free of keyways.
- b) Rotate basket up until lower aft attachment fitting is free of keyway.
Rest forward end of basket on floor.
- c) Slide basket forward and raise basket until upper aft attachment fitting is free of keyway.

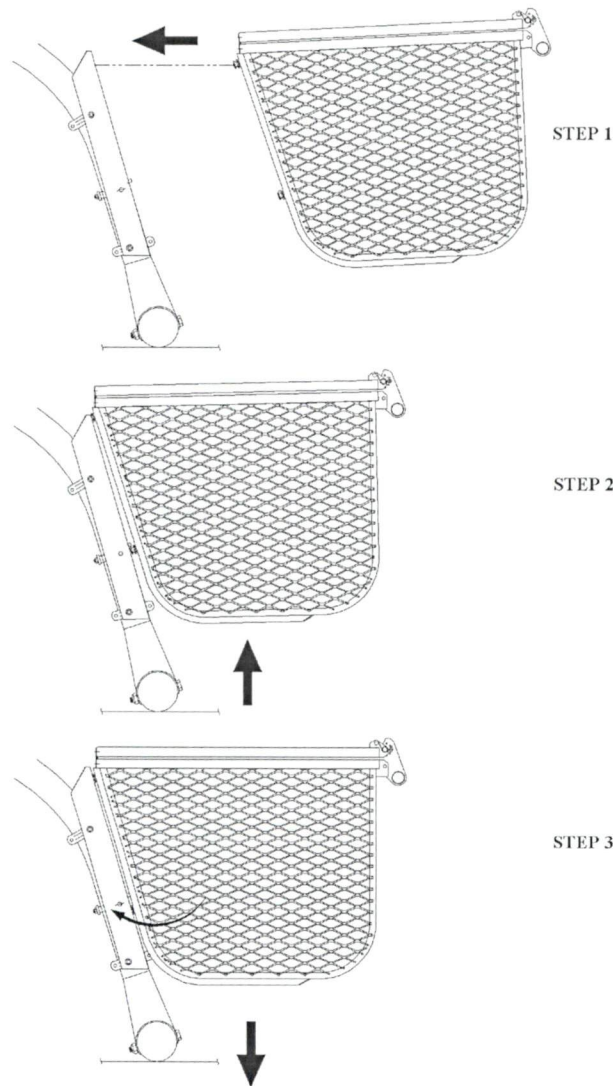


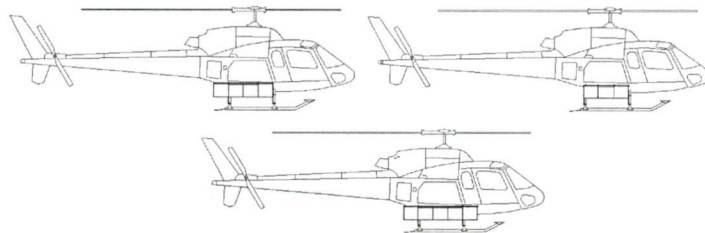
Figure 2 – Basket Attachment Steps
(Installation instructions typical for all configurations).

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 764.90

EUROCOPTER AS350 & AS355 SERIES

QUICK RELEASE CARGO BASKET

MODELS: 764, 776, 784, 940



TCCA Supplemental Type Certificate No. SH08-16
FAA Supplemental Type Certificate No. SR02680NY

Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Quick Release Cargo Basket installed in accordance with AERO Design Ltd. Document Control Lists:

- DCL764-1 (for Installation 76401), Revision 3,
- DCL776-1 (for Installation 77601), Revision 3,
- DCL784-1 (for Installation 78401), Revision 3,
- DCL940-1 (for Installation 94001), Revision 0,
- DCL786-1 (for mounting provision), Revision 3, or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 4
Date: 24 October, 2011

AERO Design Ltd.
Engineering Consultants
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2013 – 39th Avenue N.E., Calgary, Alberta T2E 6R7
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RECORD OF REVISIONS

Revision Number	Issue Date	Date Inserted	By
0	25 February 2008		Original Issue
1	24 June, 2009		
2	22 December 2009		
3	12 April 2010		
4	24 October, 2011		

LIST OF EFFECTIVE PAGES

List of Revisions	Revision 0 (Original Issue)	25 February, 2008
	Revision 1	24 June, 2009
	Revision 2	22 December, 2009
	Revision 3	12 April, 2010
	Revision 4	24 October, 2011

List of Effective Pages

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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for rotorcraft embodying the Quick Release Cargo Basket as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Quick Release Cargo Basket. Requests for a copy may be made in writing to:

AERO Design Ltd.
2013 39th Avenue N.E.
Calgary, Alberta
T2E 6R7
Fax: 403-250-8333
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

0-5 GENERAL DESCRIPTION

The cargo basket installation is a metal mesh basket installed to the side of the helicopter on beams attached to the landing gear cross tubes. The quick release basket allows for the installation and removal of the basket without tools, leaving the mounting beams in place.

The basket itself is made of a steel welded tubing structure, and lined with expanded steel mesh. The basket has a hinged lid with a self-locking handle.

The beams consist of a steel tube bolted to a clamp on the cross-tube. The quick release mechanism is built into the steel tube.

CHAPTER 4 - AIRWORTHINESS LIMITATIONS

Transport Canada

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

FAA

The Airworthiness Limitations section is FAA approved and specifies maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

No additional airworthiness limitations have been imposed due the installation of the Quick Release Cargo Basket.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Quick Release Cargo Basket.

Daily Inspection

1. Inspection Area: Basket
 - a) Inspect the basket attachment to the beams for condition and security. Ensure quick release mechanism is completely extended, flush with the outboard surface of the beam.
 - b) Inspect latching of the lid for correct operation. If basket is bent inward the lid will close but may not latch.

300 Hour or Annual Inspection

1. Inspection Area: Basket
 - a) Visually inspect tube-to-tube welds and mesh-to-tube welds for cracks, corrosion or other damage.
 - b) Visually inspect basket mesh for damage.
2. Inspection Area: Beams

With the basket removed:

 - a) Visually inspect beams and clamps attaching basket to the helicopter for cracks, corrosion or other damage.
 - b) Visually inspect lugs attaching the basket to the beams for security and damage.
 - c) Visually inspect bolts attaching beams to clamps and clamps to cross tubes for condition and security.
 - d) Visually inspect peg step on aft beam for crack corrosion or other damage. Inspect grip surface on top of peg for condition.

Special Inspections

1. Following a hard landing inspect the Quick Release Cargo Basket installation in accordance with the 300 hour or annual inspection listed above.
2. Any joints using a helical thread insert (Helicoil) shall be inspected on assembly in accordance with the procedure for checking self locking nuts and screws specified in the Eurocopter Standard Practices Manual, Section 20.02.05.601

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Basket

- a) Repair Basket in accordance with AC43.13-1B, Chapter 4, Section 5, Welding, as required.
- b) Basket is fabricated from the following materials:

Attachment Hoops:	1" square steel tube and/or 1/2" square steel tube
Lid and Rim:	3/4" square steel tube
Frames:	1/2" square steel tube
Mesh:	3/4" 16 ga. (0.040") expanded steel mesh
- c) Touch up with polyurethane paint as required following repairs.

2. Steel Beams

DO NOT REPAIR DAMAGE TO BEAMS IF BEYOND THE LIMITS BELOW.

- a) Nicks and/or gouges on any face up to 0.015" deep and 0.125" wide may be dressed out to a smooth contour.
- b) Critical keyway dimensions are shown in Figure 5.1. Attempt to insert 15/32 drill shank into bottom end of keyway. If drill can be inserted, slot is worn beyond limit.

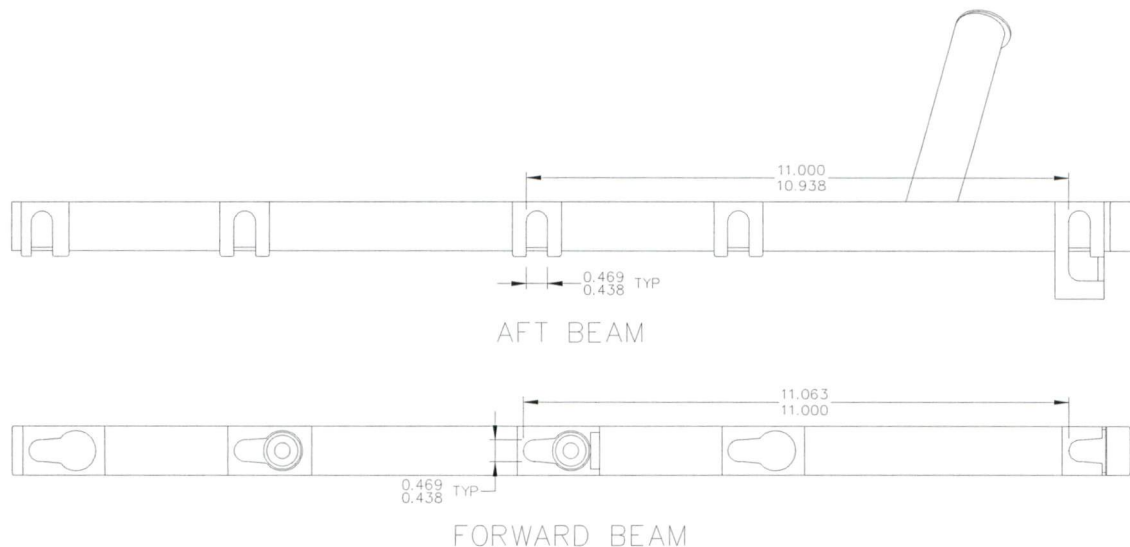


Figure 5.1 – Critical Keyway Dimensions

- c) Touch up with polyurethane paint as required following repairs.
- d) Aft beam only: Grip surface on top of peg step has 1" wide 3M Safetywalk grip tape, or equivalent, on the top surface. Alternatively, it may be painted with Randolph X1567 WingWalk grip paint or equivalent.

3. Aluminum Clamps

DO NOT REPAIR DAMAGE TO CLAMPS IF BEYOND THE LIMITS BELOW.

- a) Nicks and/or gouges on the top or bottom surface up to 0.060" deep and 0.125" wide may be dressed out to a smooth contour. Refer to Figure 5.2.
- b) Nicks and/or gouges on the outer edge up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour. Refer to Figure 5.2.
- c) Any cracking on any surface is unacceptable.
- d) Touch up with polyurethane paint as required following repairs.

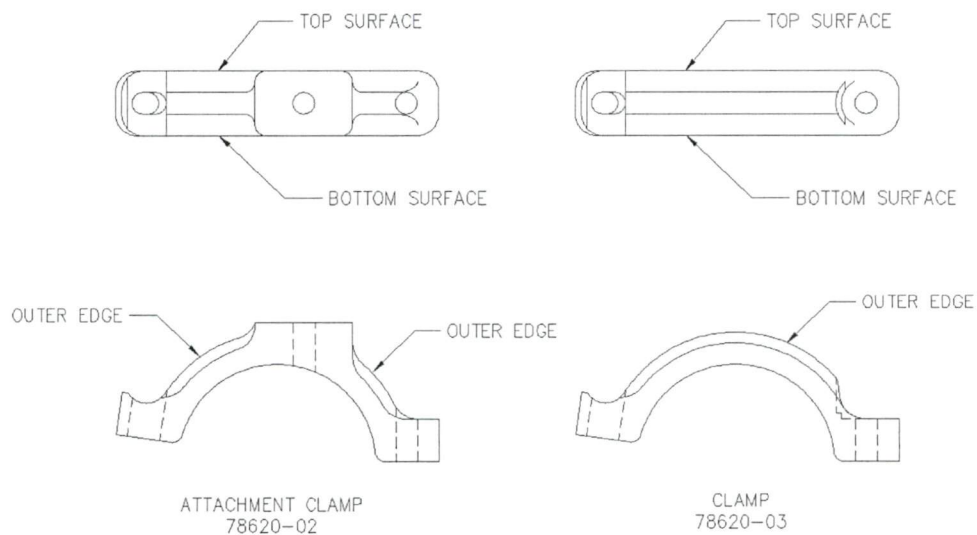


Figure 5.2 – Aluminum Clamps
(78620-01 shown, 78621-XX similar)

4. Helical Thread Inserts

Helical thread inserts (Helicoils) found to be damaged shall be repaired in accordance with the Eurocopter Standard Practices Manual, Section 20.03.04.404.

Part numbers:

1/4-28 insert: 3591-4CN375

5-3 PROTECTIVE TREATMENT INFORMATION

1. Beams

The steel tubes are supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint.

Aft beam only: the peg step has a 1" wide strip of 3M SafetyWalk grip tape applied to the top surface. If the grip tape is damaged it may be replaced with equivalent grip tape or may be painted with Randolph X1567 WingWalk grip paint.

2. Clamps

The aluminum clamps are supplied painted white. If the paint is damaged, touch up with white polyurethane paint.

3. Cargo Basket

The cargo basket is supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint.

CHAPTER 11 – MARKINGS AND PLACARDS

The following markings and placards are used with the Quick Release Cargo Basket Installation, located on basket lid:



PLACARD FOR 776 BASKET INSTALLATION



PLACARD FOR 764 BASKET INSTALLATION



PLACARD FOR 784 BASKET INSTALLATION



PLACARD FOR 940 BASKET INSTALLATION

CHAPTER 25 – EQUIPMENT AND FURNISHINGS

SECTION 50 – CARGO COMPARTMENTS

The Quick Release Cargo Basket Installation may be applied to the right or left side of the helicopter.

25-1 BEAMS INSTALLATION

Refer to section 25-6 for part numbers.

The HIGH beam mounting position (configuration 78602-02-XX) is standard and uses the LOWER set of holes in the beams. The LOW beam mounting position (configuration 78602-01-XX) is required if the helicopter is fitted with cargo compartment extenders ("squirrel cheeks"), and uses the UPPER set of holes in the beams.

Installation pictures show LEFT SIDE, HIGH mounted installation.

1. Position two (2) Clamp Assemblies 78620-01 around each cross tube. Fasten clamps using one AN4-14A Bolt, two (2) AN960-416 Washers and MS21044N4 Nut through one side of the Clamp Assembly and one FT4F-175H T-Bolt and BH00182A4 Self-Aligning Nut through the other side of the Clamp Assembly. Fully torque AN4-14A bolt, do not tighten T-Bolt.

Note orientation (refer to figure 25.1 thru 25.3):

Forward – Top:	Lug Outboard
Forward – Bottom:	Lug Inboard
Aft – Top:	Lug Inboard
Aft – Bottom:	Lug Inboard

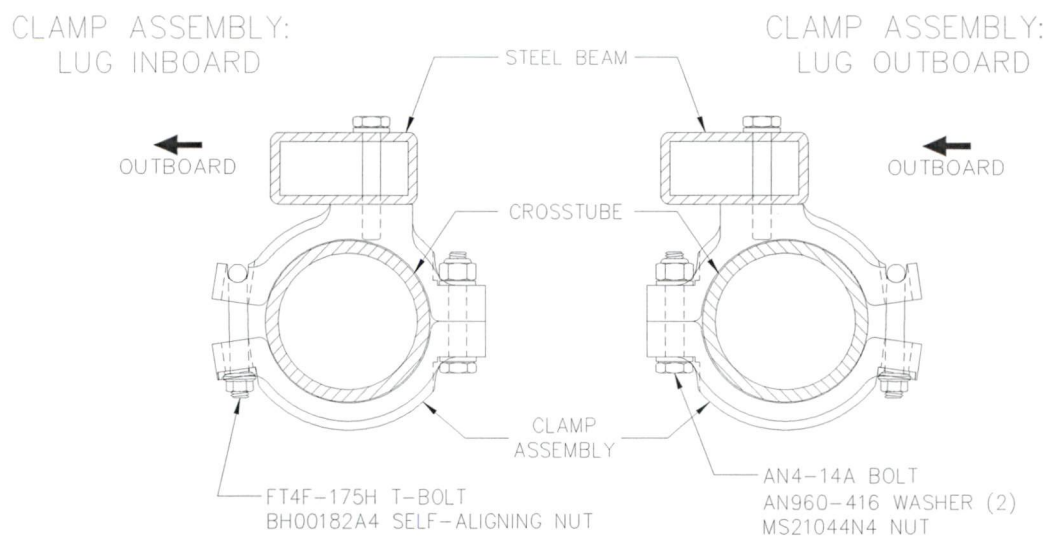


Figure 25.1 – Beam Installation – Clamp Detail

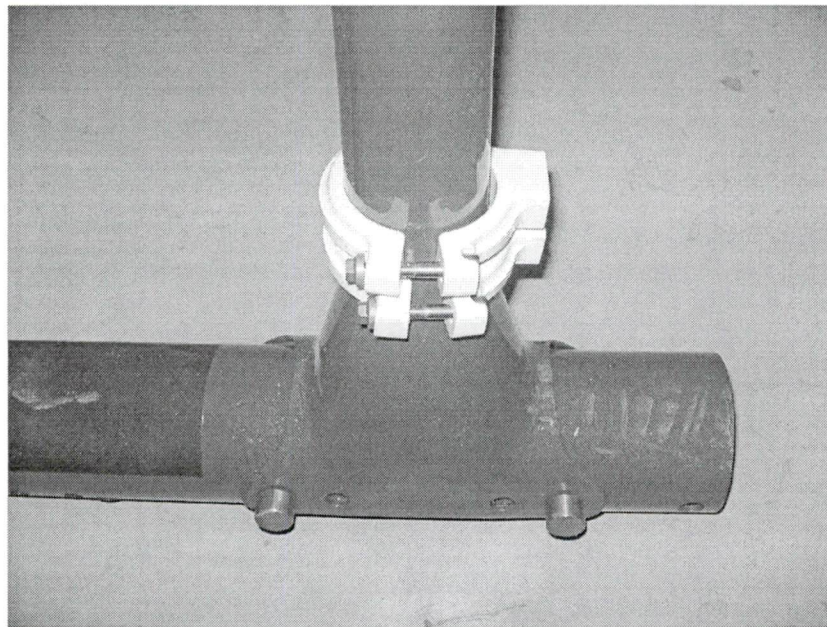


Figure 25.2 – Aft Cross Tube Clamps

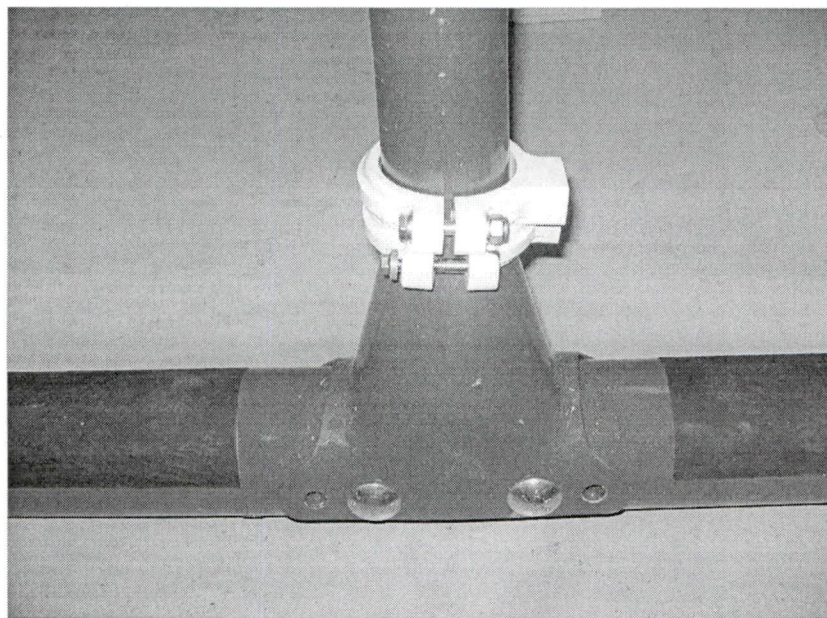


Figure 25.3 – Forward Cross Tube Clamps

2. Attach Forward Beam Assembly to Clamp Assemblies on forward cross tube with two (2) AN4-14A Bolts and two (2) AN960-416 Washers. Locate clamps on LOWER set of holes in beam for HIGH installation, or UPPER set of holes for LOW installation. Do not fully tighten bolts. Position beam so that the bottom clamp is slightly above the weld at the bottom of the cross tube. Tighten clamp bolts enough to prevent slippage on the tube while adjusting installation in following steps.

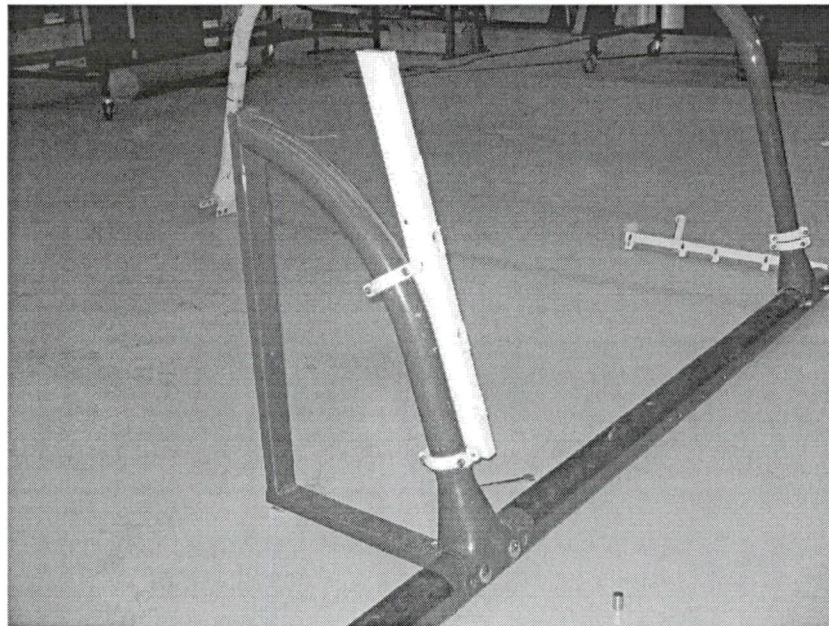


Figure 25.4 – Forward Beam Installation
(Looking aft)

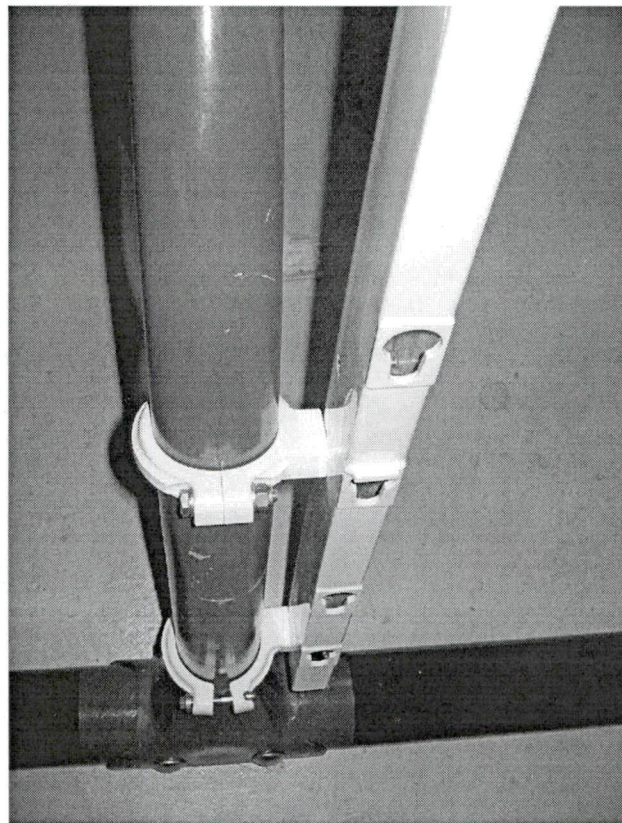


Figure 25.4 – Forward Beam Installation
(Looking down)

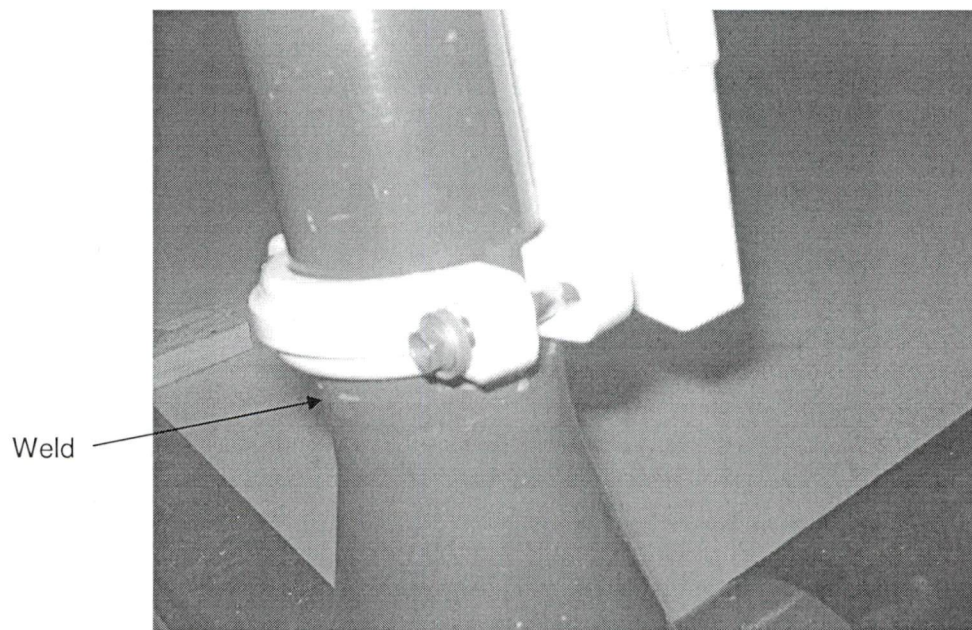


Figure 25.5 – Forward Beam Installation, Bottom Clamp

3. Attach Aft Beam Assembly to Clamp Assemblies on aft cross tube with two (2) AN4-14A Bolts and two (2) AN960-416 Washers. Locate clamps on LOWER set of holes in beam for HIGH installation, or UPPER set of holes for LOW installation. Do not fully tighten bolts. Position beam so that the bottom clamp is slightly above the weld at the bottom of the cross tube. Tighten clamp bolts enough to prevent slippage on the tube while adjusting installation in following steps.

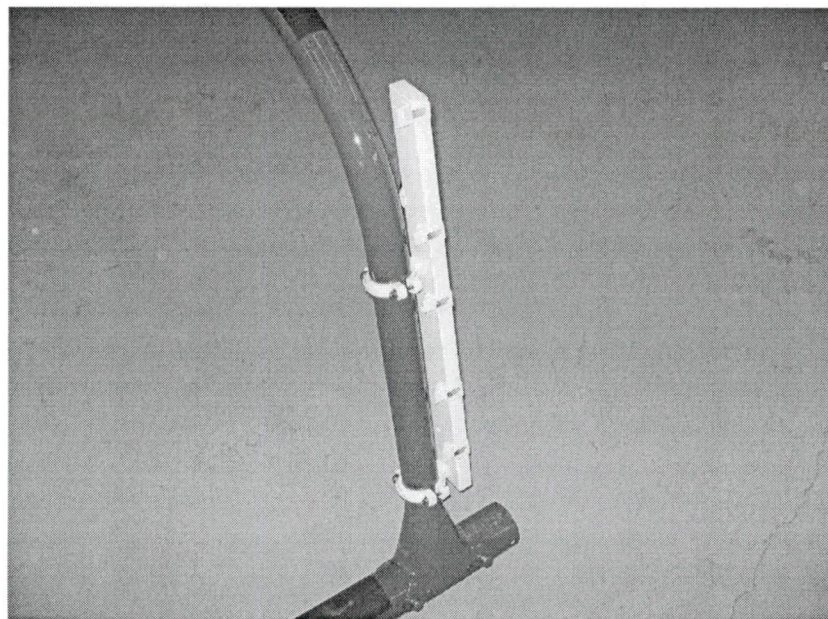


Figure 25.6 – Aft Beam Installation
(Looking aft)

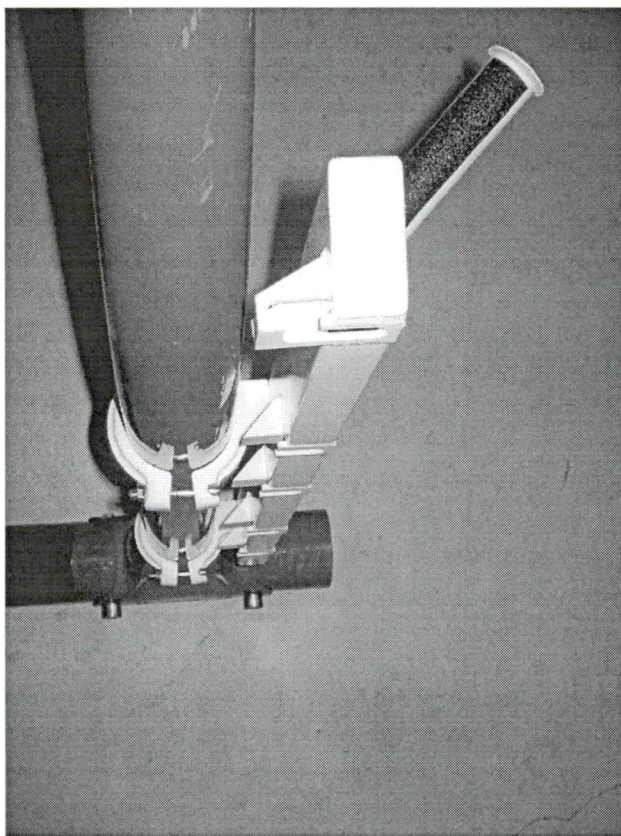


Figure 25.7 – Aft Beam Installation
(Looking down)

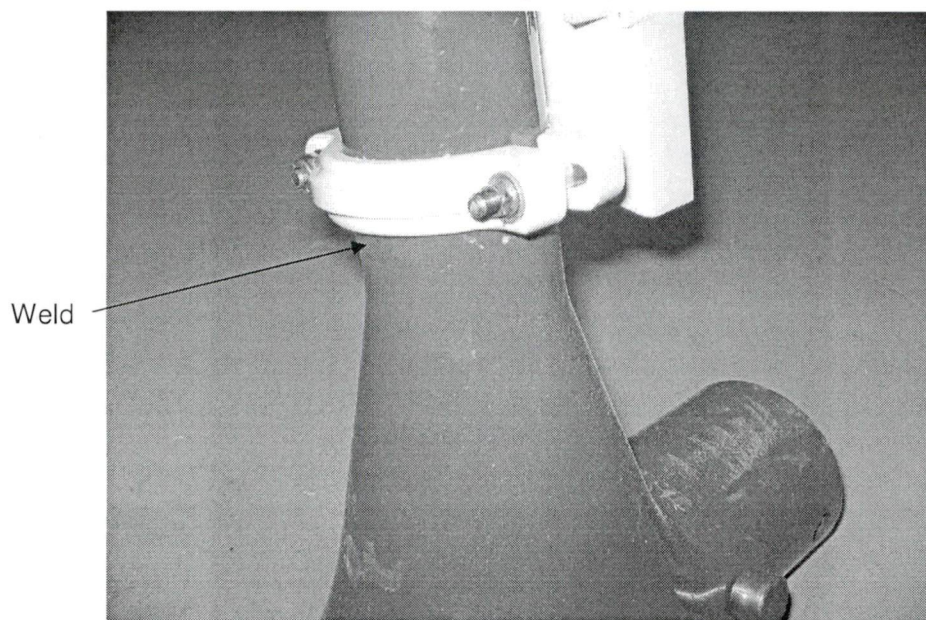


Figure 25.8 – Aft Beam Installation, Bottom Clamp

4. Using a large square or straight edge as a reference, align the forward and aft beams with the cross tubes. Loosen bolts if required to adjust the beam, re-tighten clamp bolts after adjusting.

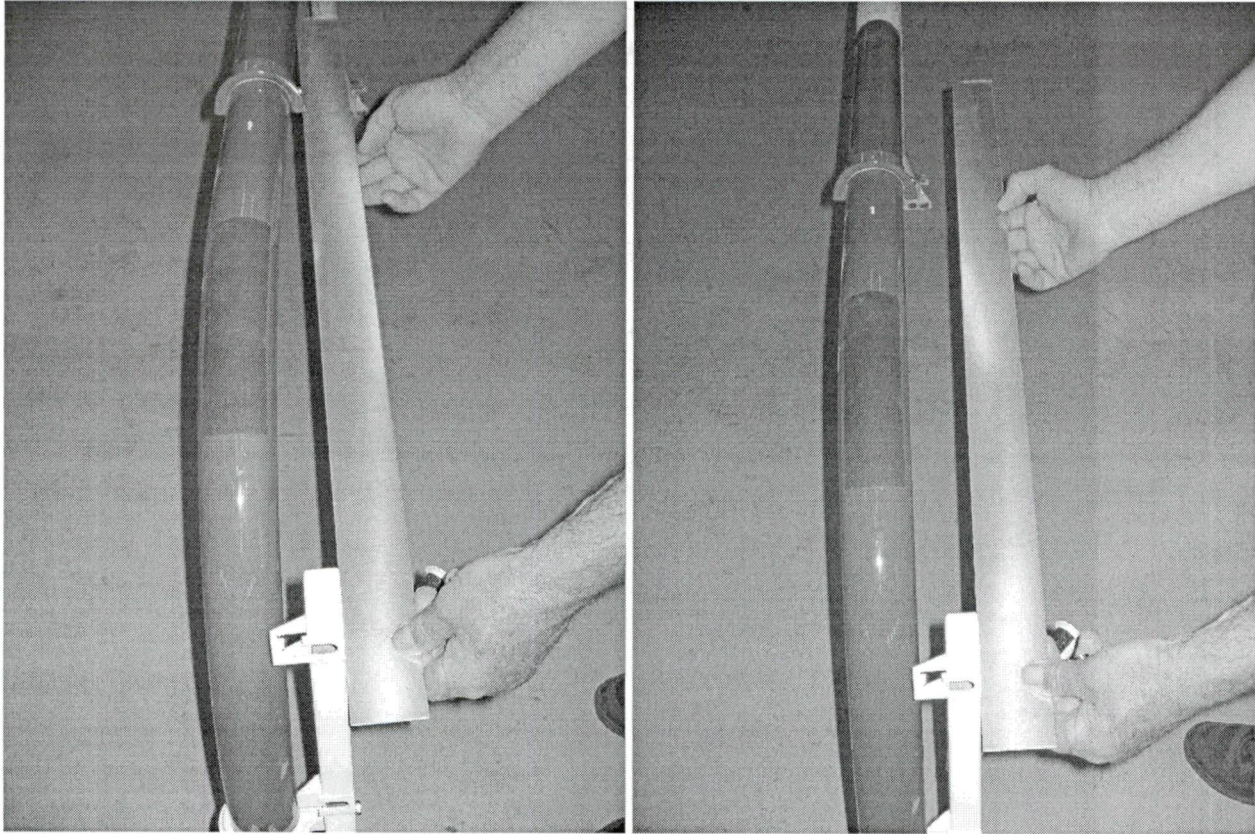


Figure 25.9 – Beam Alignment

(Note left picture is not parallel to cross tube, right picture is correct)

5. In order to easily snap the basket in and out of the beams, the beams must be correctly aligned. The following steps detail the alignment procedures. Ensure beams are approximately parallel and aligned front to back before starting. For all procedures listed below, set the basket on the beams as described, remove the basket to apply the correction and re-check with the basket after.

- a. *Beams too close together or too far apart (basket cannot be installed in top slots):*

Set upper aft attachment fitting on basket into top keyway in aft beam and slide basket aft. Attempt to insert upper forward fitting into top keyway of forward beam.

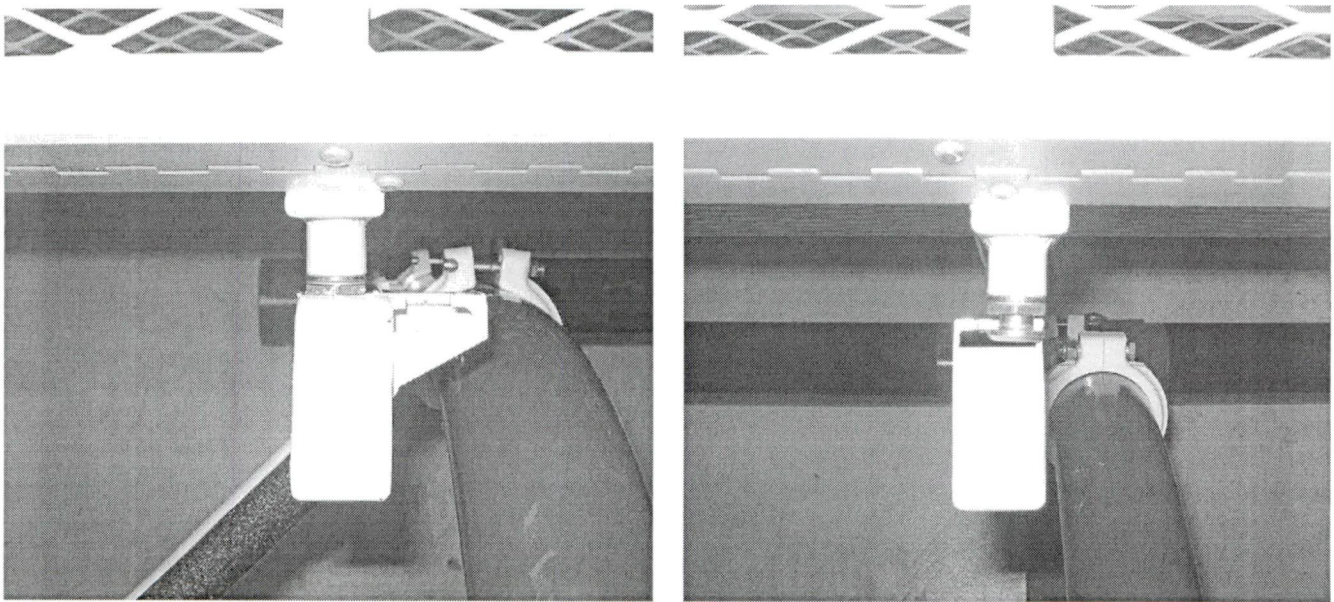


Figure 25.10 – Beam Adjustment, Step 1 – Beams too close together
(Looking down, left picture aft beam, right picture forward beam)

The basket attachment fittings should be centred on the beams to allow for some fore/aft movement on the aft beam if required due to landing conditions or changes in weight and balance. Note in Figure 25.10 the aft fitting is bottomed in the aft slot and the forward fitting cannot be inserted. In this case the AFT beam would require shimming.

Using 1/4" commercial stainless steel fender washers, shim the forward or aft beam as required by inserting washer(s) between the beam and both clamps. Only use enough shims to allow basket to enter the TOP slot.

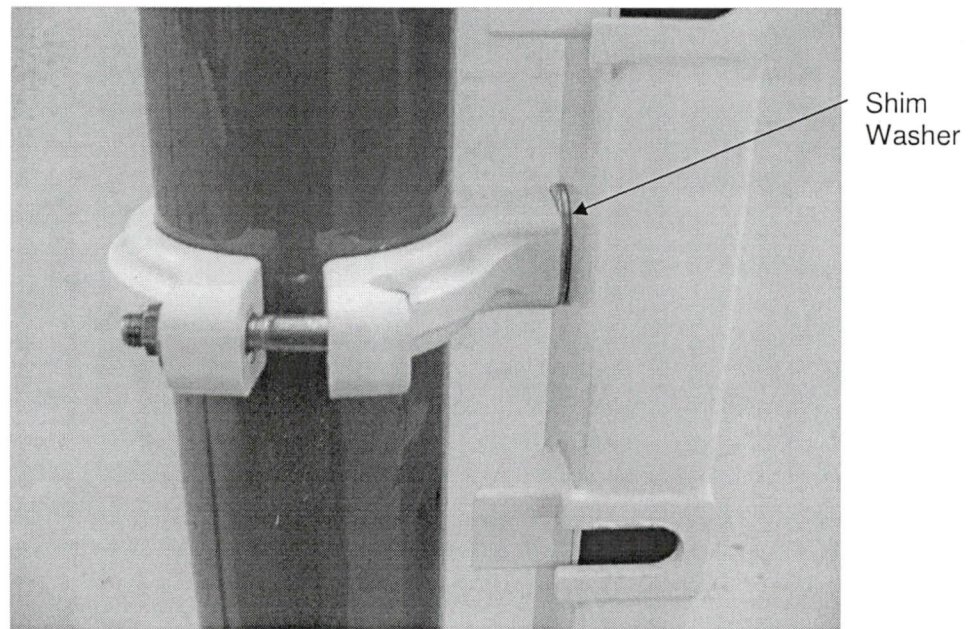


Figure 25.11 – Beam Adjustment, Step 1 – Shim Rear Beam

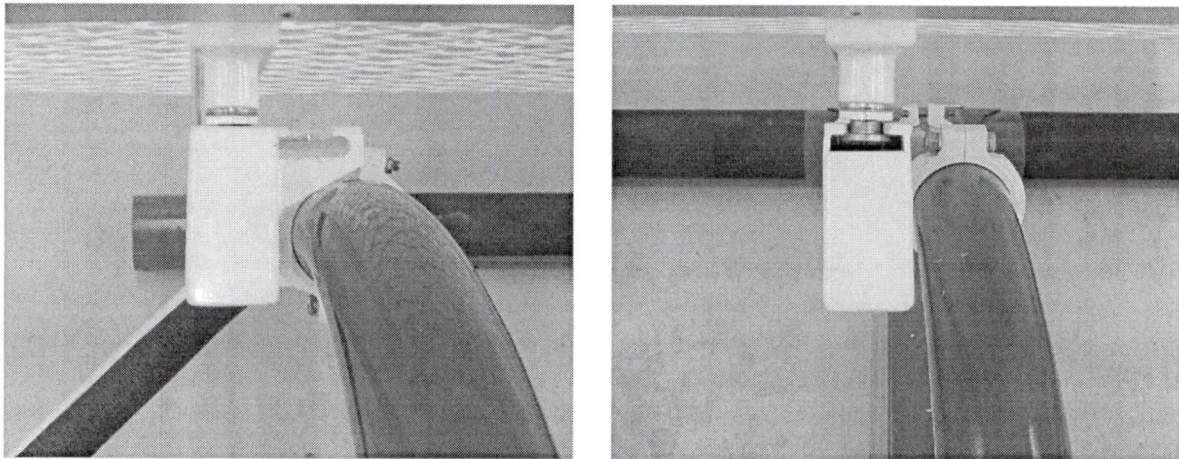


Figure 25.12 – Beam Adjustment, Step 1 – Basket Attachments After Shimming

- b. *Basket in top slots, resting with bottom fittings against beams (not in keyways), forward fitting does not line up with keyway (fore/aft):*

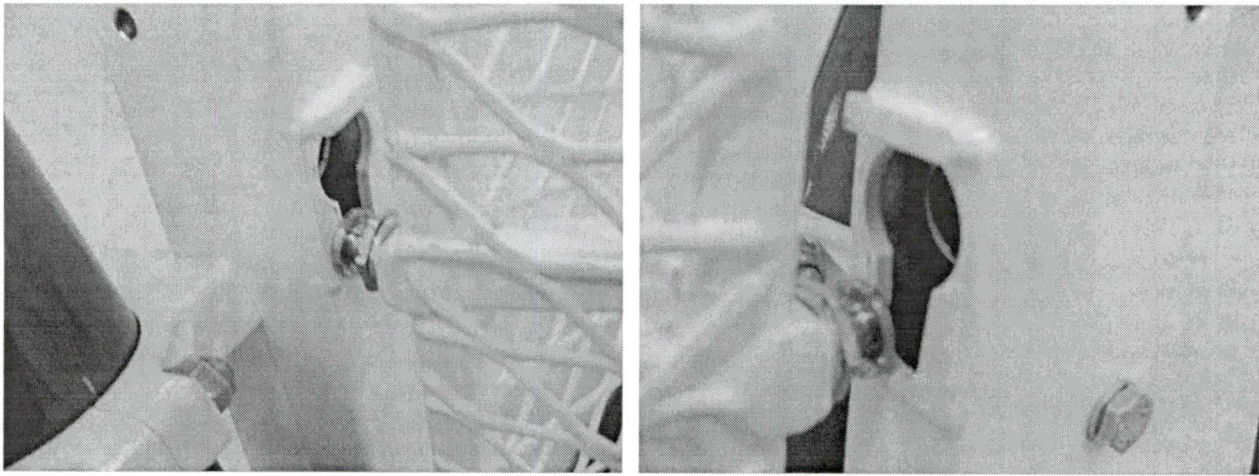


Figure 25.13 – Basket Adjustment Step 2 – Forward Fitting Out of Alignment
(Left picture is looking aft, right picture is looking forward)

The beams are not at the same height. Raise or lower the aft beam along the aft cross tube until the bottom fittings on the basket are aligned with both keyways.

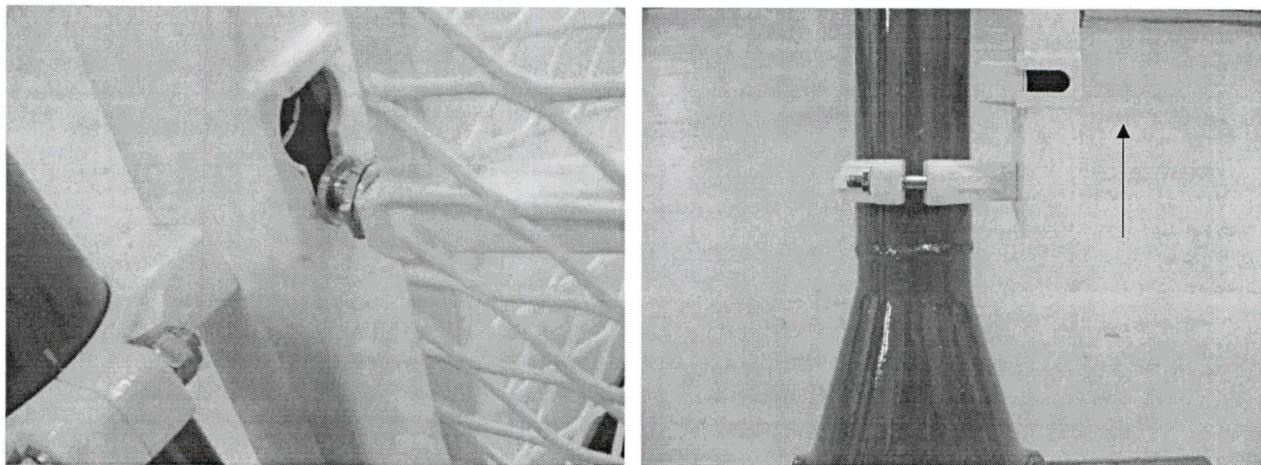


Figure 25.14 – Basket Adjustment Step 2 – Forward Fitting Aligned
(Aft beam moved up to align forward fitting with keyway)

- c. *Basket in top slots, resting with bottom fittings against beams, bottom aft fitting bottoms out in keyway:*

The landing gear cross tubes are not parallel. Using 1/4" commercial stainless steel fender washers, shim the top or bottom (as required) to align the bottom fitting on the basket with the keyway.

- d. *Basket in top slots, resting with bottom fitting against beams, bottom fitting is away from the surface of the forward beam (outboard):*

The beams are not parallel. Adjust the forward beam up or down the forward cross tube until both bottom fittings sit flat on the beams.

- e. *Basket in all keyways, does not slide smoothly in and out of forward beam:*

Opposite attachment fittings on the basket (top front and bottom aft or bottom front and top aft) may be shimmed out using a maximum of two (2) additional AN960-616 washers to allow the basket to slide into the keyways without twisting.

6. Bolts attaching beams to clamps (AN4-14A) that have been shimmed require longer bolts. There must be at least 0.38" of thread protruding with shims in place.

1 washer – AN4-14A bolt (no change)

2-3 washers – AN4-15A bolt

4-5 washers – AN4-16A bolt

Shimming in excess of 5 washers may indicate incorrect alignment in step 5. Confirm corrective actions taken, and if shims are still required, contact AERO Design Ltd. for further instructions.

7. Torque all 1/4" fasteners (12 places) to 30-40 inch-pounds. Note: A gap will remain on the side of the clamp assembly with the T-bolt as shown in Figure 25.1.

25-2 EUROCOPTER POD COMPATIBLE BEAMS INSTALLATION

A helicopter that is fitted with Eurocopter Extended Cargo Compartment ("Squirrel Cheeks") requires different Clamp Assemblies as listed in section 25-6, (configuration 78603-01-XX). Installation procedure is the same as listed in Section 25-1, with the beams mounted in the LOW position.

Ensure Clamp Assemblies are correct for the side of the helicopter the basket is to be installed on. The beam mounting lug is on the BOTTOM of the clamp and points AFT. The forward top clamp is different than the other three clamps.

25-3 BEAMS REMOVAL

Refer to Figure 25.1.

1. Remove Cargo Basket. Refer to section 25-5.
2. Remove fasteners securing clamp assemblies to the forward cross-tube. Remove Beam Assembly with clamps.
3. Remove fasteners securing clamp assemblies to the aft cross-tube. Remove Beam Assembly with clamps.

25-4 BASKET INSTALLATION

Refer to Figure 25.15 and Figure 25.16. Refer to section 25-6 for part numbers.

1. Set basket upper aft attachment into upper keyway in aft beam. Forward end of basket may rest on floor.
2. Lift basket from forward end, slide lower aft attachment into keyway on aft beam.
3. At forward attachment hoop, lift basket until lower attachment fitting hits stop.
4. Push fitting into keyway and slide basket down until locked.

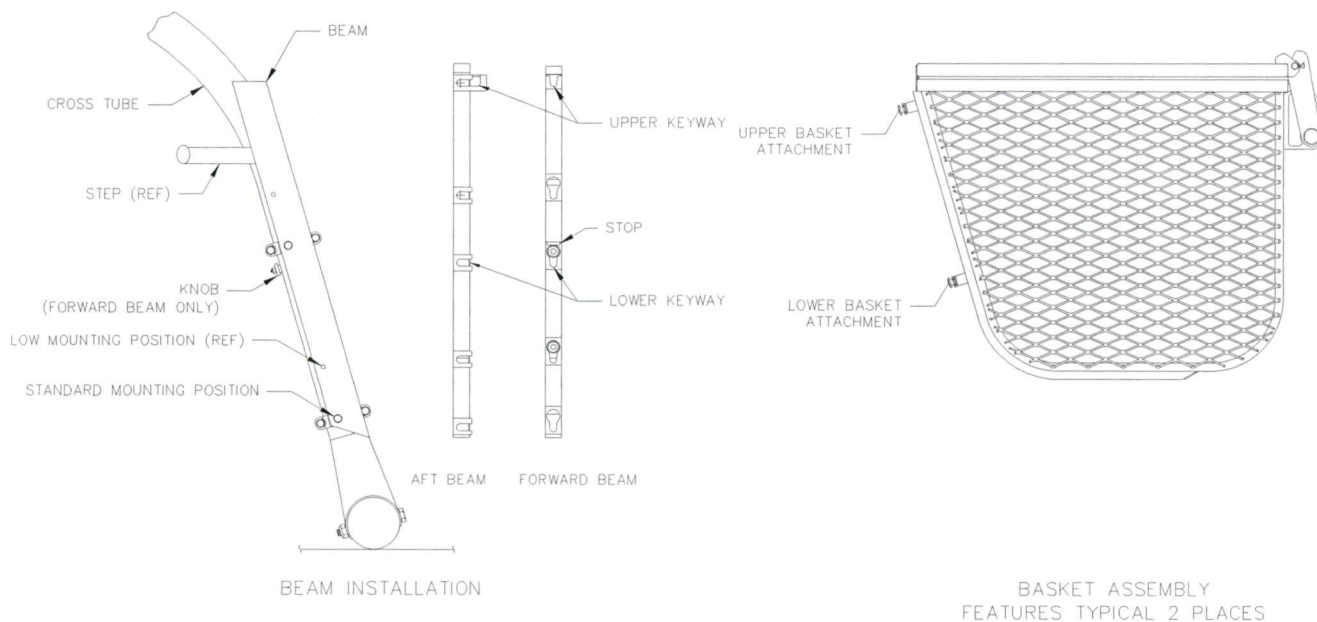


Figure 25.15 – Basket Attachment Features

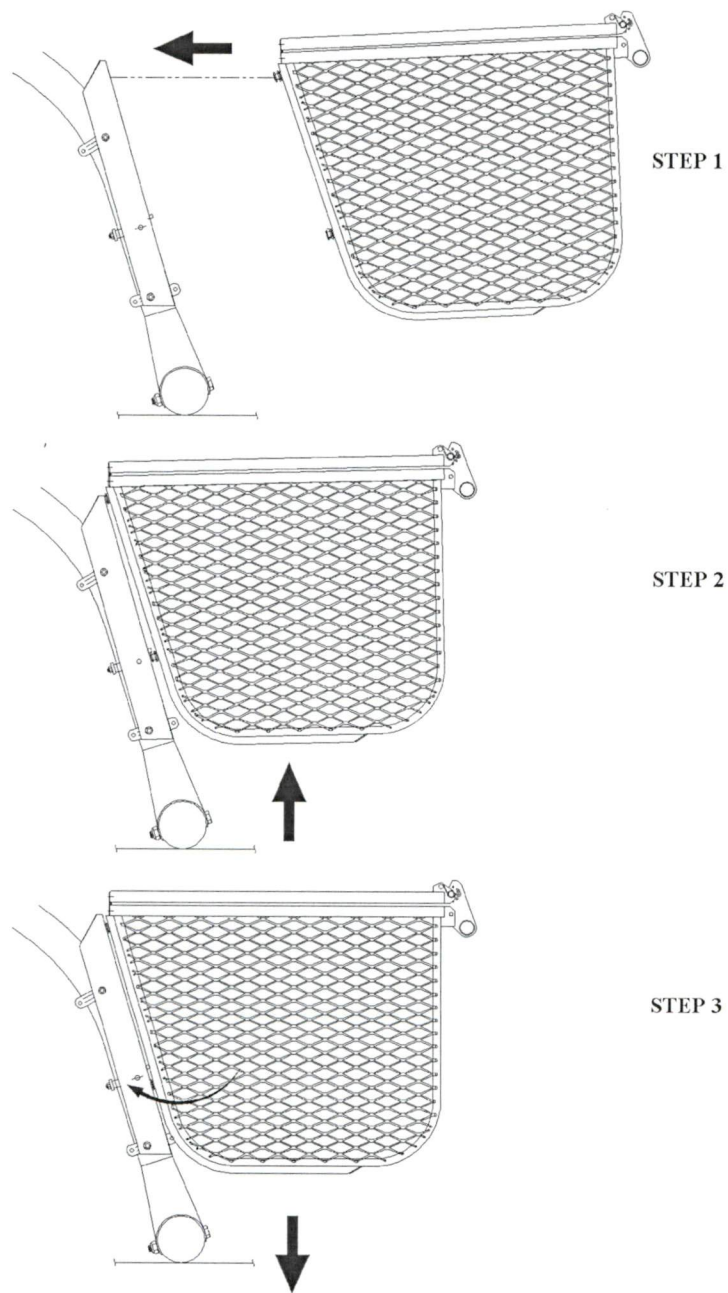


Figure 25.16 – Basket Attachment Steps

25-5 BASKET REMOVAL

Refer to Figure 25.15 and Figure 25.16.

1. Pull knob at bottom end of forward beam and lift basket until attachment fittings are free of keyways on forward beam.
2. Rotate basket up until lower aft attachment fitting is free of keyway. Rest forward end of basket on floor.
3. Slide basket forward and raise basket until upper aft attachment fitting is free of keyway.

25-6 BILL OF MATERIALS

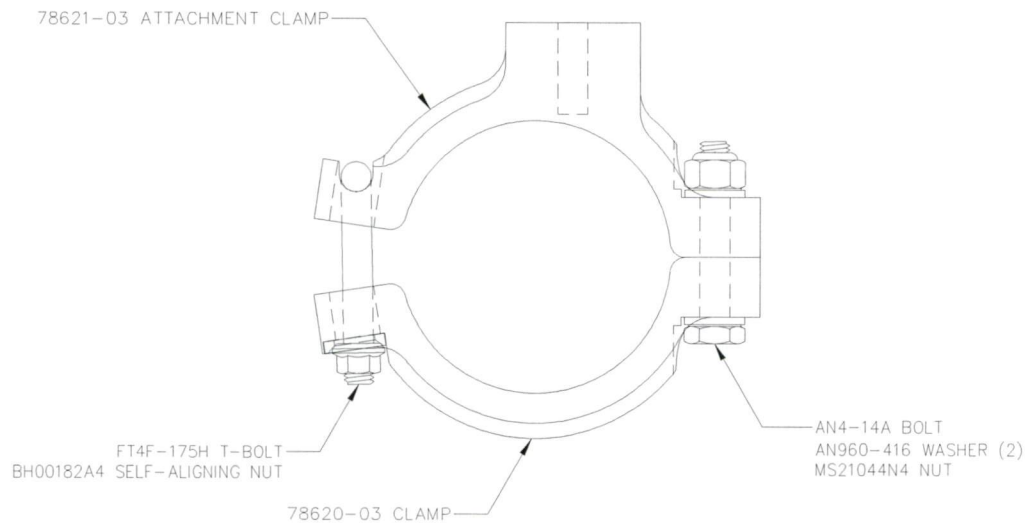
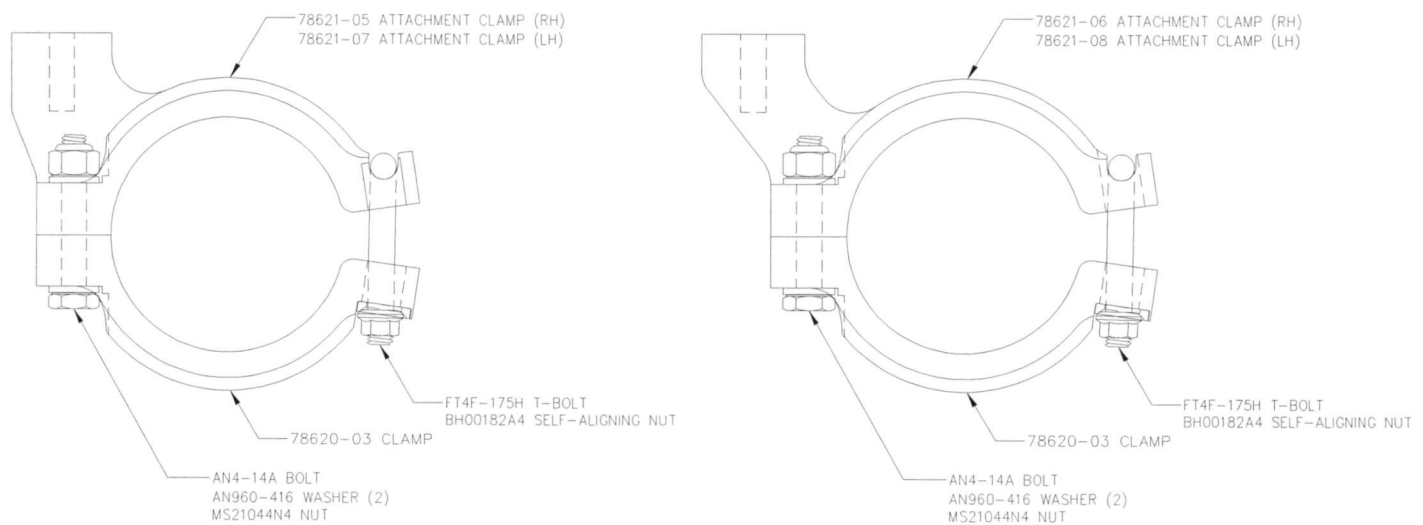


Figure 25.17 – Clamp Assembly

CLAMP ASSEMBLY (Standard)

Qty.	Part Number	Description
	78620-01	Clamp Assembly
. 1	78620-02	Attachment Clamp (with mounting pad)
. 1	78620-03	Clamp (no mounting pad)
. 1	AN4-14A	Bolt
. 2	AN960-416	Washer
. 1	MS21044N4	Nut
. 1	FT4F-175H	T-Bolt
. 1	BH00182A4	Self Aligning Nut



FORWARD TOP ONLY

Figure 25.18 – Eurocopter Pod Compatible Clamps
(Right Hand shown, Left Hand opposite)

CLAMP ASSEMBLY (Eurocopter Pod Compatible)

Qty.	Part Number	Description
	78621-01	Right Hand Clamp Assembly
. 1	78621-05	Attachment Clamp
	78621-02	Right Hand, Forward Top, Clamp Assembly
. 1	78621-06	Attachment Clamp
	78621-03	Left Hand Clamp Assembly
. 1	78621-07	Attachment Clamp
	78621-04	Left Hand, Forward Top Clamp Assembly
. 1	78621-08	Attachment Clamp
. 1	78621-09	Clamp (no mounting pad)
. 1	AN4-14A	Bolt
. 2	AN960-416	Washer
. 1	MS21044N4	Nut
. 1	FT4F-175H	T-Bolt
. 1	BH00182A4	Self Aligning Nut

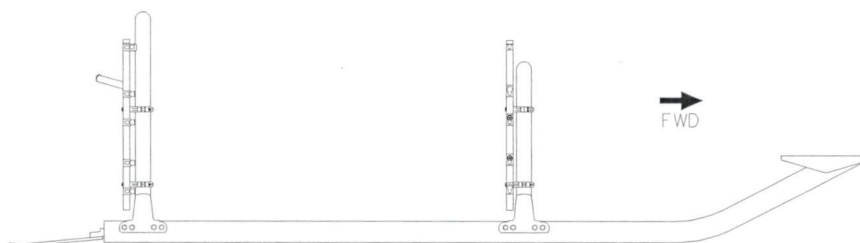
PROVISIONS INSTALLATION*LOW CONFIGURATION*

Figure 25.19 – Low Mounted Provisions Installation

Qty.	Part Number	Description
1	78602-01-01	Provisions Installation- RH Low
1	78602-01-02	Provisions Installation- LH Low
. 4	78620-01	Clamp Assembly
. 1	78633-01-01	Aft Beam Assembly (RH)
. 1	78633-01-02	Aft Beam Assembly (LH)
. 1	78634-01-00	Forward Beam Assembly
. 4	AN4-14A	Bolt
. 4	AN960-416	Washer
. A/R	--	Commercial Stainless Steel Fender Washer

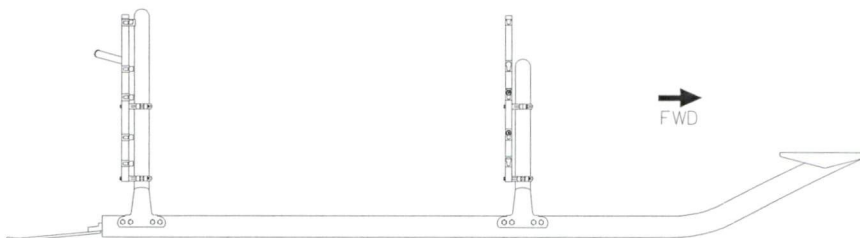
HIGH CONFIGURATION

Figure 25.20 – High Mounted Provisions Installation

Qty.	Part Number	Description
1	78602-02-01	Provisions Installation – RH High
1	78602-02-02	Provisions Installation – LH High
. 4	78620-01	Clamp Assembly
. 1	78633-01-01	Aft Beam Assembly (RH)
. 1	78633-01-02	Aft Beam Assembly (LH)
. 1	78634-01-00	Forward Beam Assembly
. 4	AN4-14A	Bolt
. 4	AN960-416	Washer
. A/R	--	Commercial Stainless Steel Fender Washer

EUROCOPTER POD COMPATIBLE CONFIGURATION

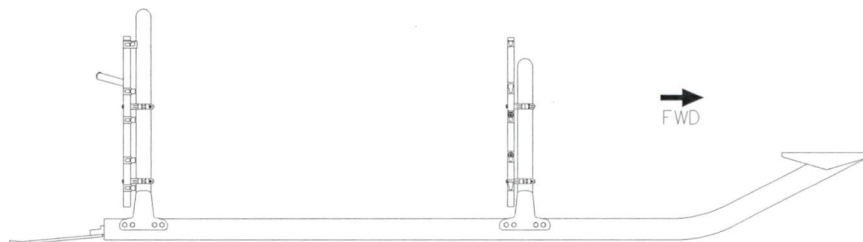


Figure 25.21 – Eurocopter Pod Compatible Provisions Installation

Qty.	Part Number	Description
1	78603-01-01	Provisions Installation – RH Eurocopter Pod Compatible
1	78603-01-02	Provisions Installation – LH Eurocopter Pod Compatible
. 3	78621-01	Clamp Assembly (RH)
. 3	78621-03	Clamp Assembly (LH)
. 1	78621-02	Clamp Assembly (RH – Forward Top)
. 1	78621-04	Clamp Assembly (LH – Forward Top)
. 1	78633-01-01	Aft Beam Assembly (RH)
. 1	78633-01-02	Aft Beam Assembly (LH)
. 1	78634-01-00	Forward Beam Assembly
. 4	AN4-14A	Bolt
. 4	AN960-416	Washer
. A/R	--	Commercial Stainless Steel Fender Washer

SHORT BASKET - MODEL 776

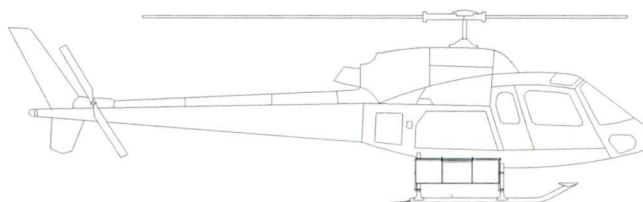


Figure 25.22 – Quick Release Cargo Basket Configuration 77601 (Short Basket)

Qty.	Part Number	Description
1	77601-01-XX	Low Short Basket Installation
. 1	78602-01-XX	Low Provisions Installation
. 1	77610-01	Short Basket Assembly
1	77601-02-XX	High Short Basket Installation
. 1	78602-02-XX	High Provisions Installation
. 1	77610-01	Short Basket Assembly
1	77601-03-XX	Eurocopter Pod Compatible Short Basket Installation
. 1	78603-01-XX	Eurocopter Pod Compatible Provisions Installation
. 1	77610-01	Short Basket Assembly

Note: -XX indicates side. Right side -01, left side -02

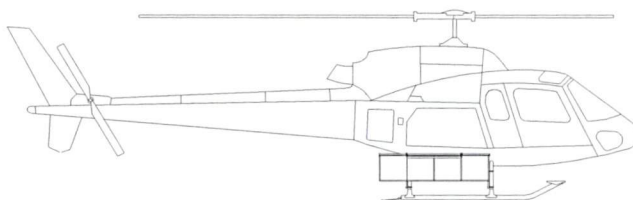
MEDIUM BASKET - MODEL 764

Figure 25.23 – Quick Release Cargo Basket Configuration 76401 (Medium Basket)

Qty.	Part Number	Description
1	76401-01-XX	Low Medium Basket Installation
. 1	78602-01-XX	Low Provisions Installation
. 1	76410-01-XX	Medium Basket Assembly
1	76401-02-XX	High Medium Basket Installation
. 1	78602-02-XX	High Provisions Installation
. 1	76410-01-XX	Medium Basket Assembly
1	76401-03-XX	Eurocopter Pod Compatible Medium Basket Installation
. 1	78603-01-XX	Eurocopter Pod Compatible Provisions Installation
. 1	76410-01-XX	Medium Basket Assembly

Note: -XX indicates side. Right side -01, left side -02

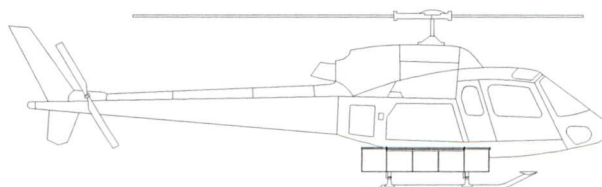
LONG BASKET - MODEL 78401

Figure 25.24 – Quick Release Cargo Basket: Configuration 78401 (Long Basket)

Qty.	Part Number	Description
1	78401-01-XX	Low Long Basket Installation
. 1	78602-01-XX	Low Provisions Installation
. 1	78410-01	Long Basket Assembly
1	78401-02-XX	High Long Basket Installation
. 1	78602-02-XX	High Provisions Installation
. 1	78410-01	Long Basket Assembly
1	78401-03-XX	Eurocopter Pod Compatible Long Basket Installation
. 1	78603-01-XX	Eurocopter Pod Compatible Provisions Installation
. 1	78410-01	Long Basket Assembly

Note: -XX indicates side. Right side -01, left side -02

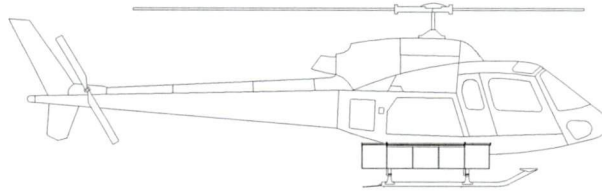
EXTRA-LONG BASKET - MODEL 94001

Figure 25.24 – Quick Release Cargo Basket: Configuration 94001 (Extra-Long Basket)

Qty.	Part Number	Description
1	94001-01-XX	Low Extra-Long Basket Installation
. 1	78602-01-XX	Low Provisions Installation
. 1	94010-01	Extra-Long Basket Assembly
1	94001-02-XX	High Extra-Long Basket Installation
. 1	78602-02-XX	High Provisions Installation
. 1	94010-01	Extra-Long Basket Assembly
1	94001-03-XX	Eurocopter Pod Compatible Extra-Long Basket Installation
. 1	78603-01-XX	Eurocopter Pod Compatible Provisions Installation
. 1	94010-01	Extra-Long Basket Assembly

Note: -XX indicates side. Right side -01, left side -02

25-6 WEIGHT AND BALANCE

This section contains weight and balance information for cargo basket models 764, 776, 784 and 940, and the universal attachment provisions 786. Each cargo basket model has multiple configurations. Refer to the weight and balance information applicable to basket model and configuration installed.

Determine the appropriate mounting position (Low, High, or Eurocopter Pod Compatible) and length (Short, Medium, or Long), then locate the configuration on Table 25.1.

Two weight and balance configurations are required: Attachment Provisions only; and Basket Installed. The basket configurations INCLUDE the provisions.

Configuration		Standard Units						Metric Units					
		Weight	Longitudinal		Lateral			Weight	Longitudinal		Lateral		
		lb	Arm	Moment	Arm	Moment		kg	Arm	Moment	Arm	Moment	
			in	in-lb	in	in-lb			mm	mm-kg	mm	mm-kg	
Mounting Provisions Installation	Part Number												
<i>Right Hand</i>													
Low	78602-01-01	6.4	135.6	867.5	37.2	238.0		2.9	3443.0	9970.6	944.6	2735.4	
High	78602-02-01	6.4	135.6	867.5	36.5	233.8		2.9	3443.0	9970.6	928.1	2687.6	
Eurocopter Pod Compatible	78603-01-01	6.8	135.4	921.0	38.8	263.6		3.1	3440.1	10584.8	984.6	3029.6	
<i>Left Hand</i>													
Low	78602-01-02	6.4	135.6	867.5	-37.2	-238.0		2.9	3443.0	9970.6	-944.6	-2735.4	
High	78602-02-02	6.4	135.6	867.5	-36.5	-233.8		2.9	3443.0	9970.6	-928.1	-2687.6	
Eurocopter Pod Compatible	78603-01-02	6.8	135.4	921.0	-38.8	-263.6		3.1	3440.1	10584.8	-984.6	-3029.6	

Table 25.1 – Weight and Balance

Configuration		Standard Units						Metric Units				
		Weight	Longitudinal		Lateral			Weight	Longitudinal		Lateral	
		lb	Arm in	Moment in-lb	Arm in	Moment in-lb		kg	Arm mm	Moment mm-kg	Arm mm	Moment mm-kg
Short Basket Installation												
<i>Right Hand</i>												
Low	77601-01-01	41.4	135.9	5627.5	45.9	1900.5		18.7	3452.6	64678.3	1166.0	21842.9
High	77601-02-01	41.4	135.9	5627.5	45.1	1868.3		18.7	3452.6	64678.3	1146.3	21473.2
Eurocopter Pod Compatible	77601-03-01	41.8	135.9	5681.0	47.8	1996.1		18.9	3452.1	65292.5	1212.9	22941.6
<i>Left Hand</i>												
Low	77601-01-02	41.4	135.9	5627.5	-45.9	-1900.5		18.7	3452.6	64678.3	-1166.0	-21842.9
High	77601-02-02	41.4	135.9	5627.5	-45.1	-1868.3		18.7	3452.6	64678.3	-1146.3	-21473.2
Eurocopter Pod Compatible	77601-03-02	41.8	135.9	5681.0	-47.8	1996.1		18.9	3452.1	65292.5	-1212.9	-22941.6
Medium Basket Installation												
<i>Right Hand</i>												
Low	76401-01-01	51.4	144.0	7401.5	46.7	2402.5		23.3	3657.6	85067.2	1187.2	27612.4
High	76401-02-01	51.4	144.0	7401.5	46.0	2362.3		23.3	3657.6	85067.2	1167.4	27150.9
Eurocopter Pod Compatible	76401-03-01	51.8	143.9	7455.0	48.6	2518.1		23.4	3655.5	85681.4	1234.7	28941.1
<i>Left Hand</i>												
Low	76401-01-02	51.4	144.0	7401.5	-46.7	-2402.5		23.3	3657.6	85067.2	-1187.2	-27612.4
High	76401-02-02	51.4	144.0	7401.6	-46.0	-2362.3		23.3	3657.6	85067.2	-1167.4	-27150.9
Eurocopter Pod Compatible	76401-03-02	51.8	143.9	7455.0	-48.6	-2518.1		23.4	3655.5	85681.4	-1234.7	-28941.1

Configuration		Standard Units						Metric Units				
		Weight	Longitudinal		Lateral			Weight	Longitudinal		Lateral	
		lb	Arm in	Moment in-lb	Arm in	Moment in-lb		kg	Arm mm	Moment mm-kg	Arm mm	Moment mm-kg
Long Basket Installation												
<i>Right Hand</i>												
Low	78401-01-01	63.9	136.0	8687.5	47.4	3026.8		28.9	3453.3	99847.5	1203.1	34787.1
High	78401-02-01	63.9	136.0	8687.5	46.6	2976.6		28.9	3453.3	99847.5	1183.2	34210.6
Eurocopter Pod Compatible	78401-03-01	64.3	135.9	8741.0	49.3	3167.4		29.1	3452.9	100461.7	1251.2	36403.0
<i>Left Hand</i>												
Low	78401-01-02	63.9	136.0	8687.5	-47.4	-3026.8		28.9	3453.3	99847.5	-1203.1	-34787.1
High	78401-02-02	63.9	136.0	8687.5	-46.6	-2976.6		28.9	3453.3	99847.5	-1183.2	-34210.6
Eurocopter Pod Compatible	78401-03-02	64.3	135.9	8741.0	-49.3	-3167.4		29.1	3452.9	100461.7	-1251.2	-36403.0
Extra-Long Basket Installation												
<i>Right Hand</i>												
Low	94001-01-01	71.2	136.0	9680.3	48.2	3432.6		32.2	3453.4	111258.0	1224.6	39452.1
High	94001-02-01	71.2	136.0	9680.3	47.5	3383.1		32.2	3453.4	111258.0	1206.9	38882.9
Eurocopter Pod Compatible	94001-03-01	71.6	135.9	9733.8	50.2	3594.3		32.4	3453.0	111872.2	1275.1	41310.3
<i>Left Hand</i>												
Low	94001-01-02	71.2	136.0	9680.3	-48.2	-3432.6		32.2	3453.4	111258.0	-1224.6	-39452.1
High	94001-02-02	71.2	136.0	9680.3	-47.5	-3383.1		32.2	3453.4	111258.0	-1206.9	-38882.9
Eurocopter Pod Compatible	94001-03-02	71.6	135.9	9733.8	-50.2	-3594.3		32.4	3453.0	111872.2	-1275.1	-41310.3

Table 25.1 – Weight and Balance (continued)

OPTIONS: If your basket includes any of the following options, include these corrections to the weight and balance data.

Standard Units

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
70406-01	Front End Cutout	-0.3	107.8	-32.3	*	*
70405-01	Lid Step (Short Basket)	4.0	136.0	544.0	*	*
70405-01	Lid Step (Medium Basket)	5.8	145.2	842.2	*	*
70405-01	Lid Step (Long Basket)	6.7	136.0	1047.2	*	*
70405-01	Lid Step (Extra-Long Basket model 940)	7.4	136.0	1047.2	*	*
70408-01	Hangar Wheel (Short/Medium Basket)	0.8	110.0	88.0	*	*
70408-01	Hangar Wheel (Lng/Extra-long Basket)	0.8	92.0	73.6	*	*

Metric Units

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	Moment mm-kg	arm mm	moment mm-kg
70406-01	Front End Cutout	-0.1	2730.5	-273.1	*	*
70405-01	Lid Step (Short Basket)	1.8	3453.3	6215.9	*	*
70405-01	Lid Step (Medium Basket)	2.6	3688.1	9589.1	*	*
70405-01	Lid Step (Long Basket)	3.0	3454.0	10362.0	*	*
70405-01	Lid Step (Extra-Long Basket model 940)	3.4	3454.4	11744.9	*	*
70408-01	Hangar Wheel (Short/Medium Basket)	0.4	2794.0	1117.6	*	*
70408-01	Hangar Wheel (Long/Extra-long Basket)	0.4	2336.8	934.7	*	*

Table 25.2 – Options Weight and Balance

*Note: Lateral arm is the same as the basket configuration. Lateral moment is calculated with the lateral arm.

25-7 STRUCTURAL FASTENER DATA

Refer to Eurocopter Standard Practices Manual for torque values not listed in this ICA.



LONG-ALT
940

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
94001	Quick Release Cargo Basket Installation	1
ICA764.90	Instructions for Continued Airworthiness	4
FMS764.91	Flight Manual Supplement	3
FABRICATION DOCUMENTS		
DCL940-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		


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SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation	
DCL940-1		Rev. <div style="text-align: center; font-size: 2em; font-weight: bold;">0</div>

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
94010	Basket Assembly	0
94011	Basket Body Assembly	0
94012	Lid Assembly	0
94023	Attachment Hoop Assembly	0
94030	Hoop	0
94027	Placard	0
49215	Spacer	0
49216	Spacer	0
84255	Handle Assembly	1
84261	Handle Bar Assembly	1
84262	Handle Bracket Assembly	1
84265	Handle Lever	1
84267	Handle Bracket	0
84272	Bushing	0
36273	Lid Bracket	1
36274	Bushing	2
36275	Bushing	3
36277	Handle Bar	0
36278	Spring	2
36280	Brace Assembly	2
ENGINEERING DOCUMENTS		
ER940.01	Engineering Report	0
ER842.01	Engineering Report	0
FTP940.03	Flight Test Plan	0
FTR940.03	Flight Test Report	1
APPROVAL:		
 <div style="display: inline-block; vertical-align: middle;"> <div style="text-align: center;">Transport Canada</div> <div style="text-align: center;">Transports Canada</div> </div>		ORIGINAL DATE: November 3, 2011 REVISION DATE:
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<h2 style="margin: 0;">DCL940-3</h2>		Rev. 0

SHORT

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
77601	Quick Release Cargo Basket Installation	3
ICA764.90	Instructions for Continued Airworthiness	3
FMS764.91	Flight Manual Supplement	2
FABRICATION DOCUMENTS		
DCL776-3	Document Control List - Basket Assembly	2
ENGINEERING DOCUMENTS		
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ORIGINAL DATE:
06 March 2008

REVISION DATE:
16 June 2010

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SHEET 1 OF 1

**Eurocopter AS350 & AS355 Series
Quick Release Cargo Basket
Installation**
DCL776-1

Rev.


3

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION	
FABRICATION DOCUMENTS			
77610	Basket Assembly	1	
77611	Basket Body Assembly	1	
77612	Lid Assembly	1	
76421	Hoop	0	
76422	Hoop Assembly	0	
77627	Placard	0	
69823	Lug	1	
49215	Spacer	0	
49216	Spacer	0	
84255	Handle Assembly	0	
84261	Handle Bar Assembly	0	
84262	Handle Bracket Assembly	0	
84265	Handle Lever	0	
84267	Handle Bracket	0	
84272	Bushing	0	
36273	Lid Bracket	1	
36274	Bushing	2	
36275	Bushing	3	
36277	Handle Bar	0	
36278	Spring	2	
36280	Brace Assembly	2	
ENGINEERING DOCUMENTS			
ER764.01	Engineering Report	0	
TP764.02	Test Plan/Report	0	
FTP764.03	Flight Test Plan/Report	0	
ER764.04	Engineering Report	0	
ER764.05	Engineering Report	0	
APPROVAL:			
 <div style="display: flex; justify-content: space-between;"> <div>Transport Canada</div> <div>Transports Canada</div> </div> <div style="text-align: center;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u><i>D. S. Austen</i></u> Appr'l No. <u>SH08-16</u> Appr'l Date <u>2008-04-11</u> Issue No. <u>3</u> Issue Date <u>2010-10-28</u> <small>YY-MM-DD</small> </div>	ORIGINAL DATE: 06 March 2008 REVISION DATE: 16 June 2010	<div style="text-align: center;"> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div>	
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Basket Assembly	
	DCL776-3		Rev. <div style="font-size: 3em; font-weight: bold;">2</div>

MEDIUM

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
76401	Quick Release Cargo Basket Installation	3
ICA764.90	Instructions for Continued Airworthiness	3
FMS764.91	Flight Manual Supplement	2
FABRICATION DOCUMENTS		
DCL764-3	Document Control List - Basket Assembly	3
ENGINEERING DOCUMENTS		
<div> <div> APPROVAL:  <div> Transport Canada </div> </div> <div> Transport Canada </div> </div> <div> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>D. S. Auden</u> Appr'l No. <u>5408-16</u> Appr'l Date <u>2008-04-11</u> Issue No. <u>3</u> Issue Date <u>2010-10-28</u> YY-MM-DD </div>		

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SHEET 1 OF 1


Eurocopter AS350 & AS355 Series
Medium Quick Release
Cargo Basket Installation

DCL764-1

Rev.

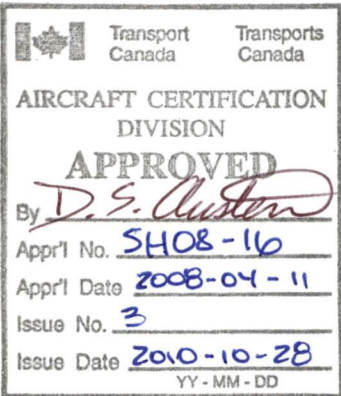
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DOCUMENT CONTROL LIST


DOCUMENT NO.	DOCUMENT CONTENT	REVISION	
FABRICATION DOCUMENTS			
76410	Basket Assembly	2	
76411	Basket Body Assembly	2	
69812	Lid Assembly	2	
76421	Hoop	0	
76422	Hoop Assembly	0	
76423	Hoop Assembly	2	
76427	Placard	1	
69823	Lug	1	
69824	Rim	0	
49212	Rim	0	
49213	Lid Brace	1	
49215	Spacer	0	
49216	Spacer	0	
84255	Handle Assembly	0	
84261	Handle Bar Assembly	0	
84262	Handle Bracket Assembly	0	
84265	Handle Lever	0	
84267	Handle Bracket	0	
84272	Bushing	0	
36273	Lid Bracket	1	
36274	Bushing	2	
36275	Bushing	3	
36277	Handle Bar	0	
36278	Spring	2	
36280	Brace Assembly	2	
ENGINEERING DOCUMENTS			
ER764.01	Engineering Report	0	
TP764.02	Test Plan/Report	0	
FTP764.03	Flight Test Plan/Report	0	
ER764.04	Engineering Report	0	
ER764.05	Engineering Report	0	
APPROVAL:			
 <div style="display: flex; justify-content: space-between;"> <div>Transport Canada</div> <div>Transports Canada</div> </div> <div style="text-align: center;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u><i>D. S. Austin</i></u> Appr'l No. <u>5408-16</u> Appr'l Date <u>2008-04-11</u> Issue No. <u>3</u> Issue Date <u>2010-10-28</u> <small>YY - MM - DD</small> </div>	ORIGINAL DATE: 06 March 2008 REVISION DATE: 16 June 2010	AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333	
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Basket Assembly	
	DCL764-3		Rev. <div style="font-size: 3em; font-weight: bold;">3</div>

LONG

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
78401	Quick Release Cargo Basket Installation	3
ICA764.90	Instructions for Continued Airworthiness	3
FMS764.91	Flight Manual Supplement	2
FABRICATION DOCUMENTS		
DCL784-3	Document Control List - Basket Assembly	3
ENGINEERING DOCUMENTS		
<div> <div> APPROVAL:  </div> <div> ORIGINAL DATE: 06 March 2008 REVISION DATE: 16 June 2010 </div> <div> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div> </div>		
SHEET 1 OF 1		Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
DCL784-1		Rev. 3

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
78410	Basket Assembly	1
78411	Basket Body Assembly	2
78412	Lid Assembly	1
76421	Hoop	0
76422	Hoop Assembly	0
76423	Hoop Assembly	2
78427	Placard	1
69823	Lug	1
49215	Spacer	0
49216	Spacer	0
84255	Handle Assembly	0
84261	Handle Bar Assembly	0
84262	Handle Bracket Assembly	0
84265	Handle Lever	0
84267	Handle Bracket	0
84272	Bushing	0
36273	Lid Bracket	1
36274	Bushing	2
36275	Bushing	3
36277	Handle Bar	0
36278	Spring	2
36280	Brace Assembly	2
ENGINEERING DOCUMENTS		
ER764.01	Engineering Report	0
TP764.02	Test Plan/Report	0
FTP764.03	Flight Test Plan/Report	0
ER764.04	Engineering Report	0
ER764.05	Engineering Report	0
APPROVAL:		
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SHEET 1 OF 1		Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Basket Assembly
DCL784-3		Rev. 3

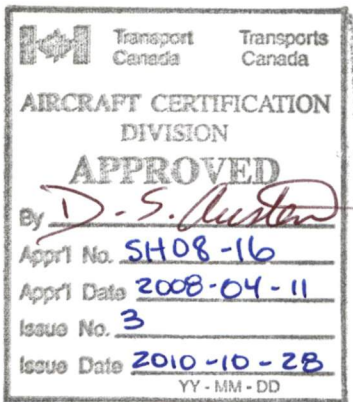
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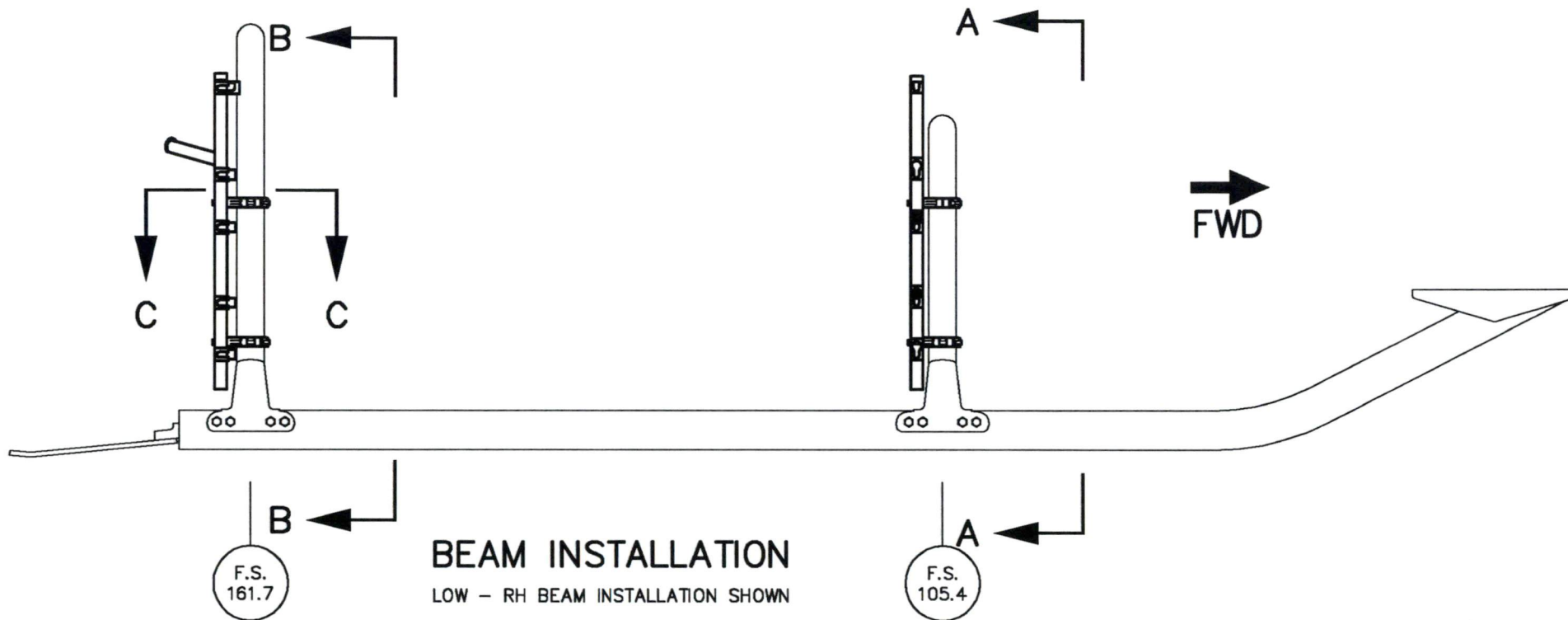
DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
78602	Attachment Provisions Installation	0
78603	Attachment Provisions Installation (Eurocopter Pod Compatible)	0
ICA764.90	Instructions for Continued Airworthiness	3
FABRICATION DOCUMENTS		
DCL786-3	Document Control List - Provision Assembly	3
ENGINEERING DOCUMENTS		

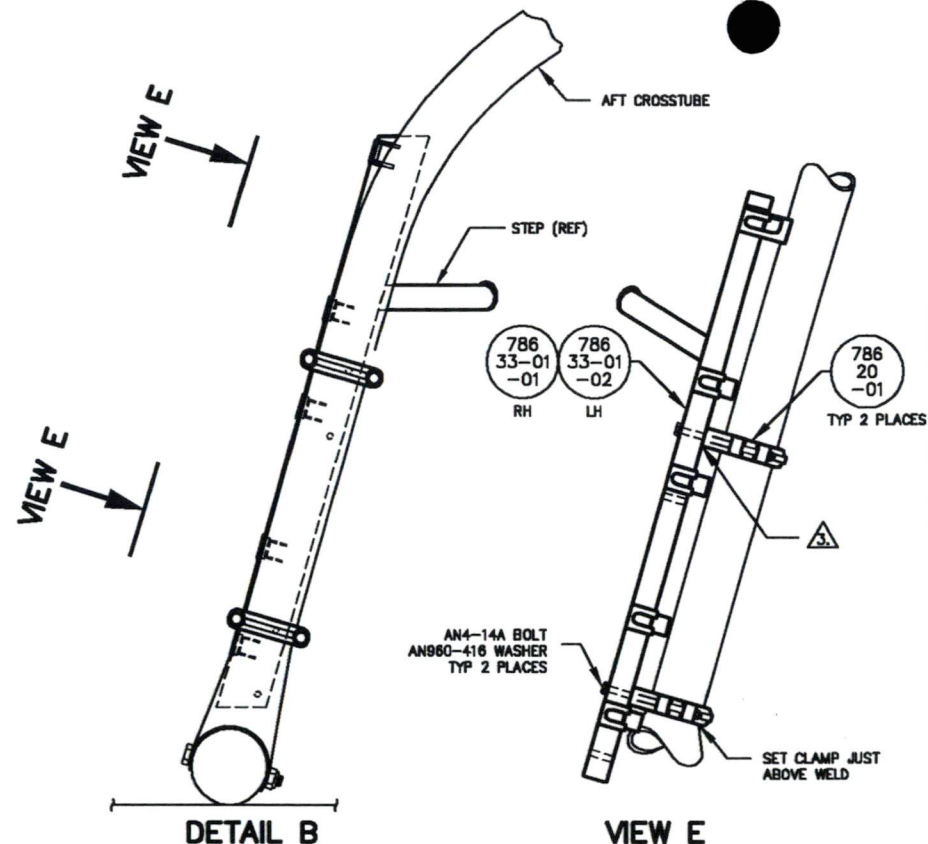
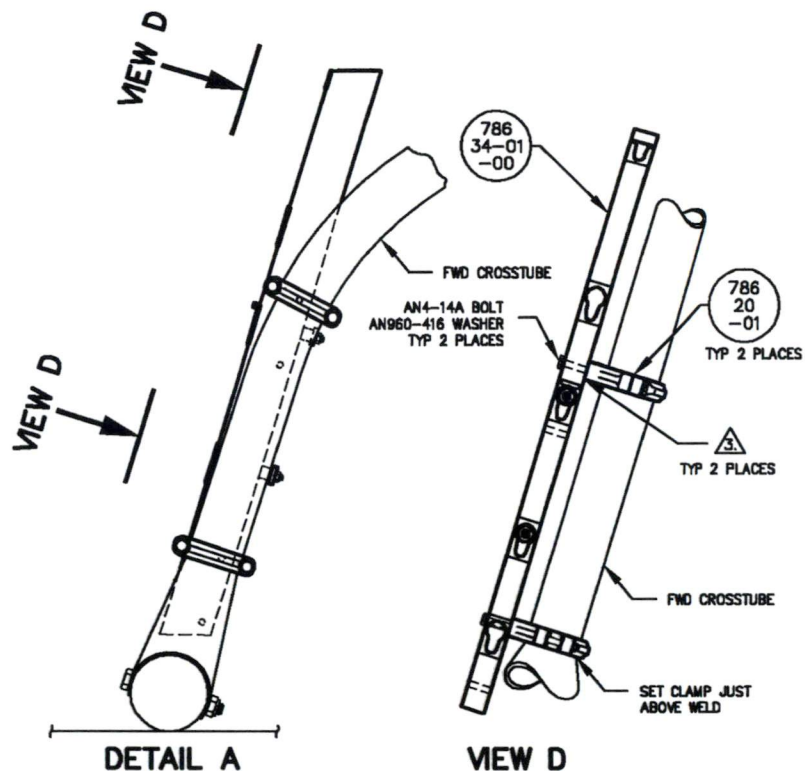
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SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Basket Provision Installation	
<h2 style="margin: 0;">DCL786-1</h2>		Rev. <h2 style="margin: 0;">3</h2>

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
78620	Clamp Assembly	3
78621	Eurocopter Pod Compatible Clamp Assembly	0
78633	Aft Beam Fabrication	0
78634	Forward Beam Fabrication	0
ENGINEERING DOCUMENTS		
ER764.01	Engineering Report	0
TR764.02	Load Test Plan/Report	0
FTP764.03	Flight Test Plan/Report	0
ER764.04	Engineering Report	0
ER764.05	Engineering Report	0
<div> <div> <p>APPROVAL:</p>  </div> <div> <p>ORIGINAL DATE: 06 March 2008</p> <p>REVISION DATE: 16 June 2010</p> </div> <div> <p>AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333</p> </div> </div>		
SHEET 1 OF 1		<p>Eurocopter AS350 & AS355 Series Basket Installation Provision Assembly</p>
<p>DCL786-3</p>		<p>Rev.</p> <p>3</p>



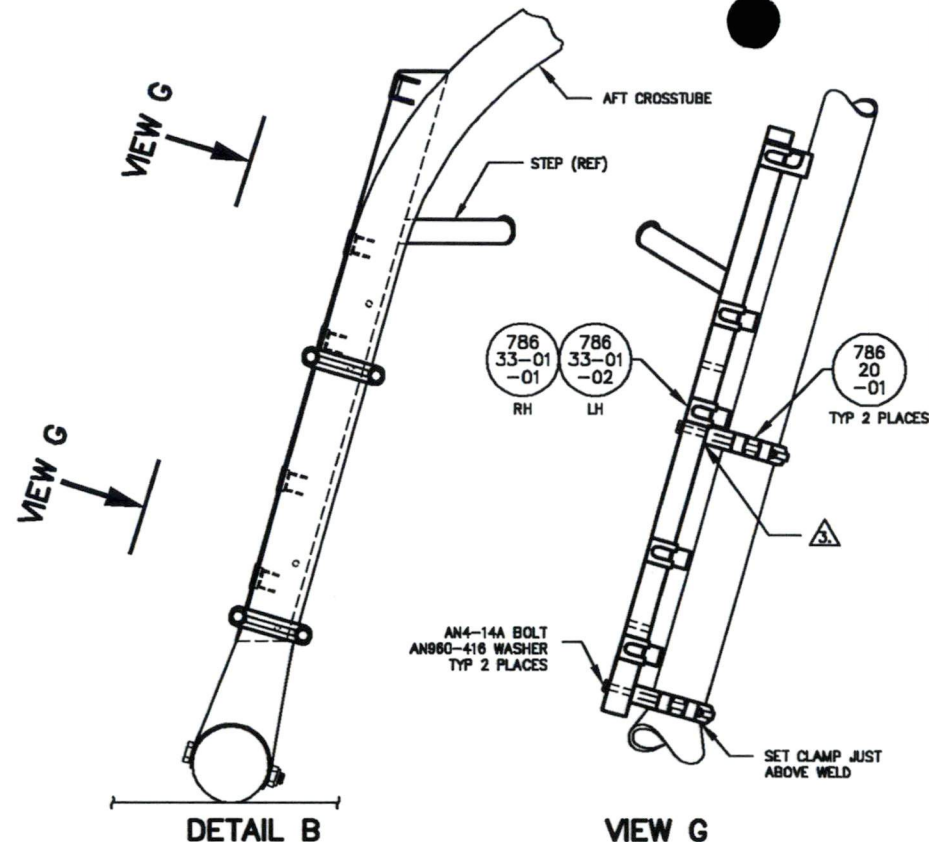
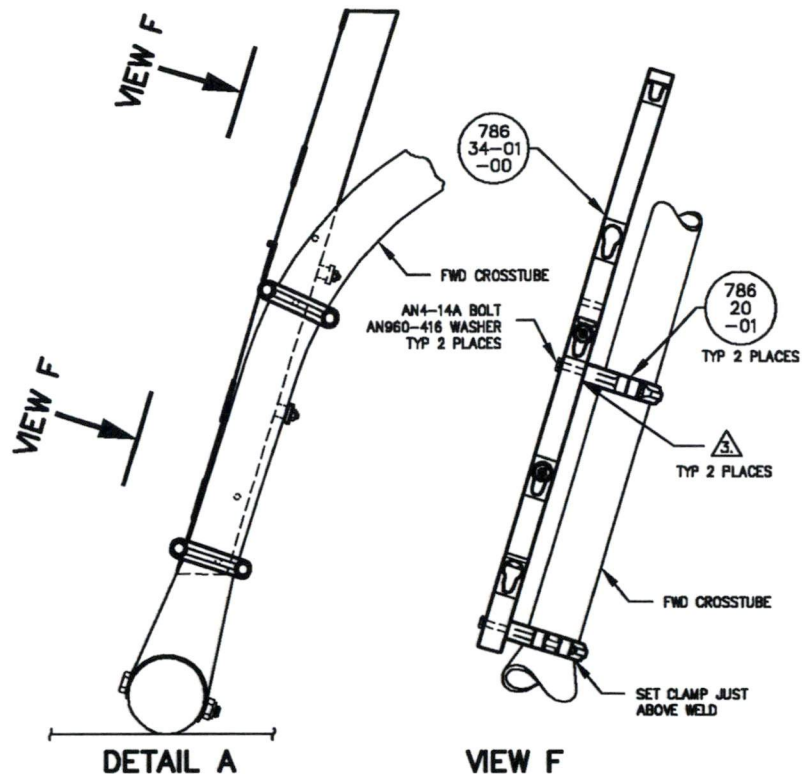
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	DRAWN: JEFF CLARKE		23 APR 2010								
	CHECKED: E. BURGOIN				<div>EUROCOPTER AS350 & AS355 SERIES</div> <div>ATTACHMENT PROVISIONS</div> <div>INSTALLATION</div>						
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2° X.XX ±0.03 X.X ±0.1		SCALE 1 : 8						DWG. SIZE A4	DWG. NO. 78602	REV. 0
			SHEET 1 OF 5								



786 02 -01-01 BEAM INSTALLATION - LOW RH
SHOWN

786 02 -01-02 BEAM INSTALLATION - LOW LH
OPPOSITE

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	DRAWN: JEFF CLARKE		23 APR 2010					
	CHECKED: E. BURGOIN				EUROCOPTER AS350 & AS355 SERIES ATTACHMENT PROVISIONS INSTALLATION			
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2" X.XX ±0.03 X.X ±0.1							
SCALE 1 : 8		DWG. SIZE		DWG. NO.		REV.		
SHEET 2 OF 5		A4		78602		0		



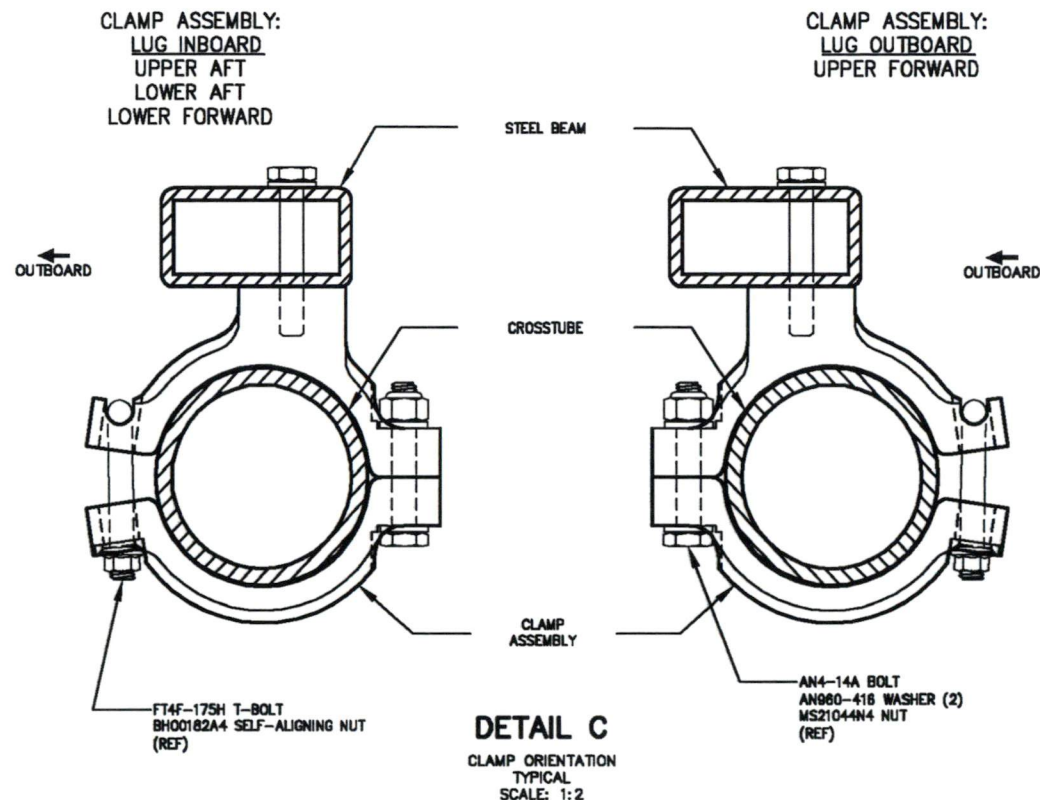
786 02-02-01 BEAM INSTALLATION - HIGH RH
SHOWN

786 02-02-02 BEAM INSTALLATION - HIGH LH
OPPOSITE

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DECIMALS	ANGLES
X.XXX ± 0.010	$\pm 1/2^\circ$
X.XX ± 0.03	
X.X ± 0.1	

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EUROCOPTER AS350 & AS355 SERIES ATTACHMENT PROVISIONS INSTALLATION				
SCALE 1 : 8	DWG. SIZE	DWG. NO.	REV.	
SHEET 3 OF 5	A4	78602	0	



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	DRAWN: JEFF CLARKE		23 APR 2010									
	CHECKED: E. BURGOIN				<div>EUROCOPTER AS350 & AS355 SERIES</div> <div>ATTACHMENT PROVISIONS</div> <div>INSTALLATION</div>							
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2" X.XX ±0.03 X.X ±0.1		SCALE 1 : 8							DWG. SIZE A4	DWG. NO. 78602	REV. 0
			SHEET 4 OF 5									

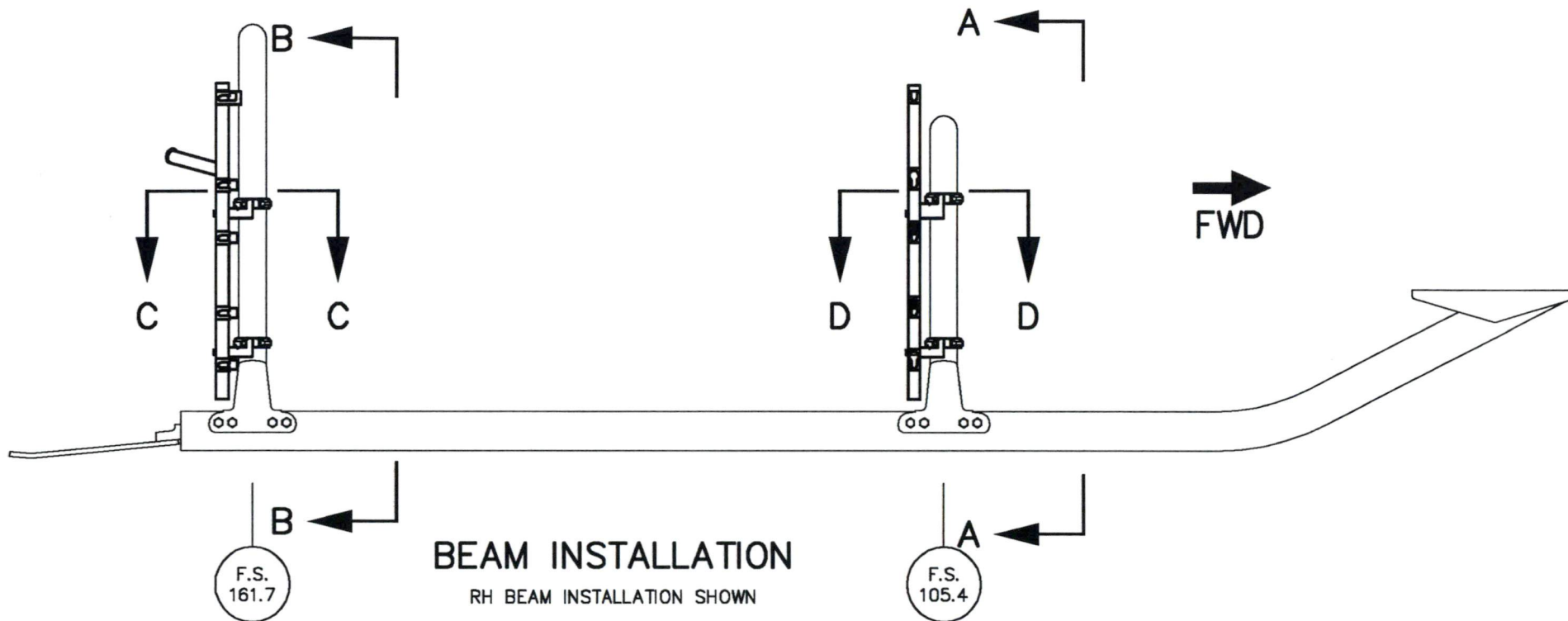
REV.	DESCRIPTION OF CHANGE	INITIAL	DATE
0	INITIAL ISSUE - CREATED FROM 78601		

NOTES:

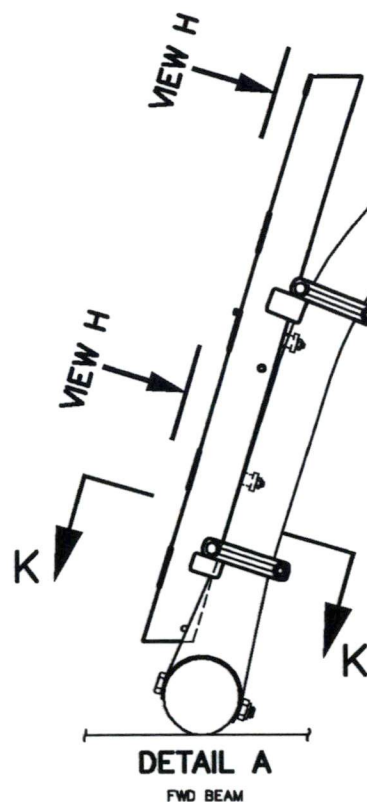
1. ATTACHMENT OF ANY EQUIPMENT TO EXTERNAL ATTACHMENT PROVISIONS
REQUIRES TRANSPORT CANADA APPROVAL.
2. TORQUE AN4 BOLTS TO 50-70 INCH-POUNDS.
3. SHIM USING COMMERCIAL 1/4" STAINLESS STEEL FENDER WASHERS IF REQUIRED. REFER TO ICA764.90 FOR INSTRUCTIONS.
4. REFER TO ICA764.90 FOR WEIGHT AND BALANCE INFORMATION.
5. CONFIGURATION 78602-01-XX IS REQUIRED IF HELICOPTER IS FITTED WITH DART SIDE BAGGAGE COMPARTMENT EXTENDER (SQUIRREL CHEEKS).
EITHER CONFIGURATION MAY BE INSTALLED IF HELICOPTER IS NOT FITTED WITH SIDE BAGGAGE COMPARTMENT EXTENDER.
REFER TO DRAWING 78603 IF HELICOPTER IS FITTED WITH EUROCOPTER SIDE BAGGAGE COMPARTMENT EXTENDER.

A/R	A/R	A/R	A/R	---	1/4" STAINLESS STEEL FENDER WASHER
4	4	4	4	AN4-14A	BOLT
1		1		78633-01-02 06	AFT BEAM ASSEMBLY (LEFT HAND)
	1		1	78633-01-01 05	AFT BEAM ASSEMBLY (RIGHT HAND)
1	1	1	1	78634-01-00 04	FORWARD BEAM ASSEMBLY
4	4	4	4	78620-01 03	CLAMP ASSEMBLY
				78602-02-02 02	BEAM INSTALLATION - HIGH LH
				78602-02-01 02	BEAM INSTALLATION - HIGH RH
				78602-01-02 01	BEAM INSTALLATION - LOW LH
				78602-01-01 01	BEAM INSTALLATION - LOW RH
-02-02	-02-01	-01-02	-01-01	PART NO.	ITEM DESCRIPTION
QTY	QTY	QTY	QTY	LIST OF MATERIALS	

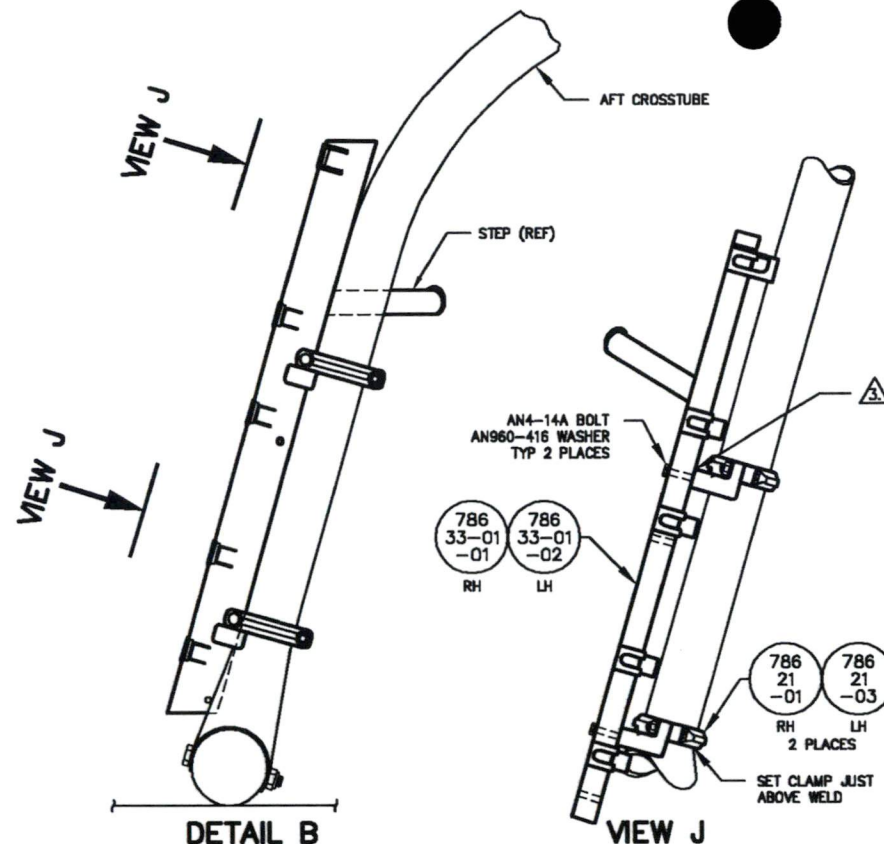
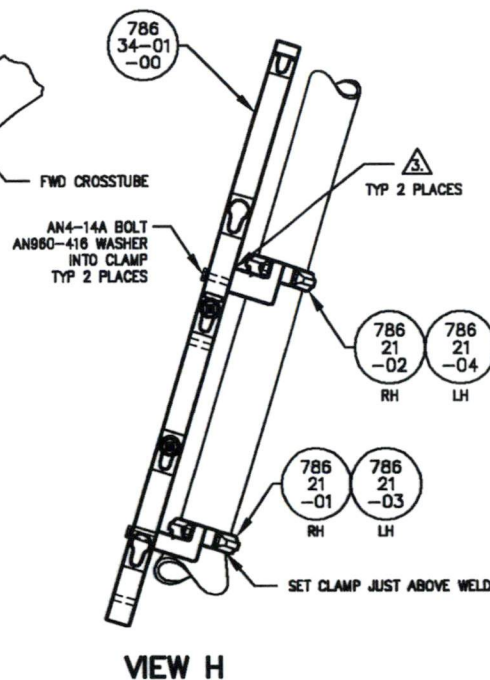
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	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2" X.XX ±0.03 X.X ±0.1				EUROCOPTER AS350 & AS355 SERIES ATTACHMENT PROVISIONS INSTALLATION			
	SCALE 1 : 8		DWG. SIZE A4		DWG. NO. 78602		REV. 0	
	SHEET 5 OF 5							



<div>NOTICE</div> <div>THIS DRAWING CONTAINS INFORMATION AND DATA WHICH IS PROPRIETARY TO AERO DESIGN LTD. THIS DRAWING, OR ANY PORTION THEREOF, MAY NOT BE REPRODUCED, COPIED, OR DUPLICATED IN ANY MANNER, NOR USED FOR MANUFACTURING WITHOUT THE WRITTEN CONSENT OF AERO DESIGN LTD. BY ACCEPTING THIS DRAWING FOR REFERENCE, THE RECIPIENT AGREES TO HOLD AERO DESIGN LTD. HARMLESS FROM THE USE, OR MISUSE, OF THIS DRAWING OR THE INFORMATION CONTAINED THEREIN.</div>	APPROVALS	DATE	<div>AERO DESIGN LTD.</div> <div>CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M</div> <div>2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7</div> <div>tel: (403) 250-8027 fax: (403) 250-8333 www.aerodesign.ca</div>			
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	DECIMALS	ANGLES				
X.XXX ±0.010	±1/2"					
X.XX ±0.03						
X.X ±0.1						
			EUROCOPTER AS350 & AS355 SERIES EUROCOPTER POD COMPATIBLE ATTACHMENT PROVISIONS INSTALLATION			
SCALE 1 : 8			DWG. SIZE	DWG. NO.	REV.	
SHEET 1 OF 4			A4	78603	0	



BOTTOM CLAMP ASSEMBLY - LUG INBOARD



AFT BEAM
NOTE: CLAMP ASSEMBLY ORIENTATION
TOP CLAMP ASSEMBLY - LUG INBOARD
BOTTOM CLAMP ASSEMBLY - LUG INBOARD

786 03
-01-01

BEAM INSTALLATION - EUROCOPTER POD RH

SHOWN

786 03
-01-02

BEAM INSTALLATION - EUROCOPTER POD LH

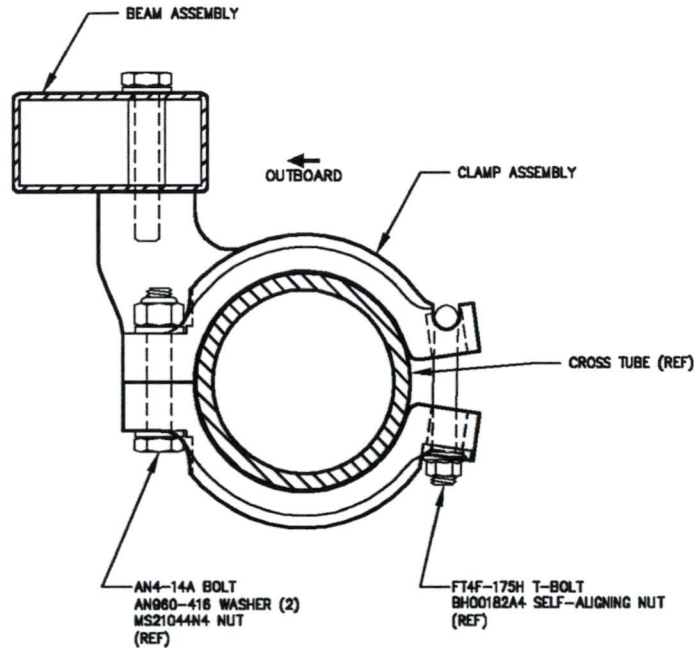
OPPOSITE

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DECIMALS	ANGLES
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X.XX ± 0.03	
X.X ± 0.1	

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EUROCOPTER AS350 & AS355 SERIES EUROCOPTER POD COMPATIBLE ATTACHMENT PROVISIONS INSTALLATION				
SCALE 1 : 8	DWG. SIZE	DWG. NO.	REV.	
SHEET 2 OF 4	A4	78603	0	

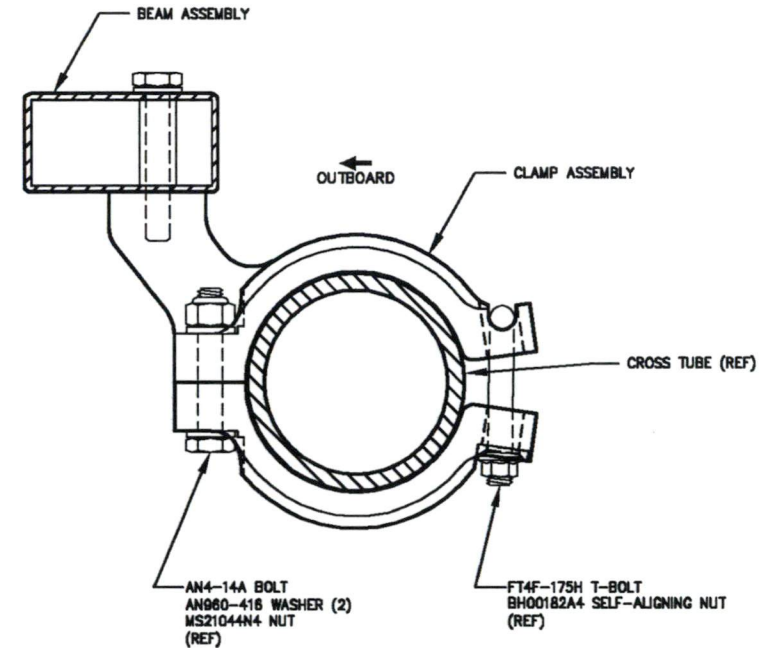
LOCATION:
UPPER AFT
LOWER AFT
LOWER FORWARD



DETAIL C

CLAMP ORIENTATION
RH SIDE SHOWN, LH SIDE OPPOSITE
SCALE: 1:2

LOCATION:
UPPER FORWARD



DETAIL D

CLAMP ORIENTATION
RH SIDE SHOWN, LH SIDE OPPOSITE
SCALE: 1:2

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X.XX ± 0.03	
X.X ± 0.1	

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EUROCOPTER AS350 & AS355 SERIES EUROCOPTER POD COMPATIBLE ATTACHMENT PROVISIONS INSTALLATION				
SCALE 1 : 8	DWG. SIZE	DWG. NO.	REV.	
SHEET 3 OF 4	A4	78603	0	

REV.	DESCRIPTION OF CHANGE	INITIAL	DATE
0	INITIAL ISSUE - CREATED FROM 78601		

NOTES:

1. ATTACHMENT OF ANY EQUIPMENT TO EXTERNAL ATTACHMENT PROVISIONS REQUIRES TRANSPORT CANADA APPROVAL.
2. TORQUE AN4 BOLTS TO 50-70 INCH-POUNDS.
3. SHIM USING COMMERCIAL 1/4" STAINLESS STEEL FENDER WASHERS IF REQUIRED. REFER TO ICA764.90 FOR INSTRUCTIONS.
4. REFER TO ICA764.90 FOR WEIGHT AND BALANCE INFORMATION.
5. THIS CONFIGURATION IS REQUIRED ON HELICOPTERS THAT HAVE BEEN MODIFIED WITH EUROCOPTER SIDE BAGGAGE COMPARTMENT EXTENDER.
THIS CONFIGURATION IS OPTIONAL ON HELICOPTERS THAT DO NOT HAVE SIDE BAGGAGE COMPARTMENT EXTENDER.
THIS CONFIGURATION IS OPTIONAL ON HELICOPTERS THAT HAVE BEEN MODIFIED WITH DART SIDE BAGGAGE COMPARTMENT EXTENDER.

A/R	A/R	---	1/4" STAINLESS STEEL FENDER WASHER
4	4	AN4-14A	BOLT
1		78633-01-02 08	AFT BEAM ASSEMBLY (LEFT HAND)
	1	78633-01-01 07	AFT BEAM ASSEMBLY (RIGHT HAND)
1	1	78634-01-00 06	FORWARD BEAM ASSEMBLY
1		78621-04 05	CLAMP ASSEMBLY (LH)
3		78621-03 04	CLAMP ASSEMBLY (LH)
	1	78621-02 03	CLAMP ASSEMBLY (RH)
	3	78621-01 02	CLAMP ASSEMBLY (RH)
		78602-01-02 01	BEAM INSTALLATION - LH EUROCOPTER POD
		78602-01-01 01	BEAM INSTALLATION - RH EUROCOPTER POD
-01-02	-01-01	PART NO.	ITEM DESCRIPTION
QTY	QTY	LIST OF MATERIALS	

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	DRAWN: JEFF CLARKE		23 APR 2010									
	CHECKED: E. BURGOIN				<div style="text-align: center;"> EUROCOPTER AS350 & AS355 SERIES EUROCOPTER POD COMPATIBLE ATTACHMENT PROVISIONS INSTALLATION </div>							
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									SHEET 4 OF 4	A4	78603	0

STEP



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Aero Design Ltd.
2013 39th Avenue North East
Calgary, Alberta
Canada T2E 6R7

Number: SH09-38

Issue No.: 3

Approval Date: August 07, 2009

Issue Date: November 30, 2010

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

EUROCOPTER AS 350 B, AS 350 B1, AS 350 B2, AS 350 B3,
AS 350 BA, AS 350 D, AS 350 D1,
EUROCOPTER FRANCE AS 355 E, AS 355 F, AS 355 F1, AS
355 F2, AS 355 N, AS 355 NP

Canadian Type Certificate or Equivalent:

EUROCOPTER AS 350: H-83
EUROCOPTER FRANCE AS 355: H-87

Description of Type Design Change:

Installation of Quick Release Maintenance Step; Installation of
Maintenance Peg Step; Installation of Fixed Cabin Step

**Installation/Operating Data,
Required Equipment and Limitations:**

Configuration A - Quick Release Maintenance Step:

Installation of the External Attachment Provisions in accordance with STC SH08-16 (Configuration A) is required for installation of the Quick Release Maintenance Step. Installation of the Quick Release Maintenance Step to be completed in accordance with Transport Canada approved, AERO Design Ltd. Document Control List, DCL827-1, Revision 4, dated 29 June 2010, or later approved revision.

External Attachment Provisions may remain installed if the Step Installation is removed.

Transport Canada approved, AERO Design Ltd. Flight Manual Supplement FMS827.90, Revision 2, dated 24 June 2010, or later approved revision is required with this installation.

Transport Canada accepted, AERO Design Ltd. Instructions for Continued Airworthiness ICA827.91, Revision 3, dated 28 June 2010, or later accepted revision is required with this installation.

.....2/

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.



R.A. Goossens
For Minister of Transport

FAA APPROVED MODEL LIST (AML) NO. SR02270NY
AERO Design Ltd.
FOR

INSTALLATION OF QUICK RELEASE MAINTENANCE STEP, MAINTENANCE PEG STEP AND FIXED CABIN STEP

Original Issue Date: January 26, 2010

ITEM	PART	REGULATION	MAKE	MODEL	TCDS	CONFIGURATION			REQUIRED DOCUMENTATION		AML AMEND- MENT DATE
						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
1	27	Federal Aviation	Eurocopter	AS 350 B, B1, B2, B3, BA, D, D1	H9EW	A	Quick Release Maintenance Step: Installation of the External Attachment Provisions (Configuration A), per STC SR02680NY is a prerequisite for this installation.	Aero Design Ltd. Document Control List DCL827A-1 Revision 2, dated 7 August 2009, Transport Canada Approved 7 August 2009, or later Transport Canada approved revisions.	Aero Design Ltd. ICA 827.91 Rev. 1, dated 23 July 2009, Transport Canada accepted 7 August 2009 or later Transport Canada accepted revision.	AERO Design Ltd. Flight Manual Supplement FMS827.90 Revision 0, dated 4 August 2009, Transport Canada Approved 7 August 2009 or later Transport Canada approved revisions.	
2				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA APPROVED MODEL LIST (AML) NO. SR02270NY
AERO Design Ltd.
FOR

INSTALLATION OF QUICK RELEASE MAINTENANCE STEP, MAINTENANCE PEG STEP AND FIXED CABIN STEP

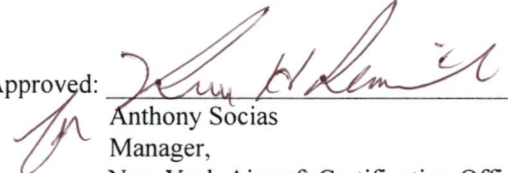
ITEM	PART	REGULATION	MAKE	MODEL	TCDS	CONFIGURATION			REQUIRED DOCUMENTATION		AML AMEND- MENT DATE
						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
1, continued	27	Federal Aviation	Eurocopter	AS 350 B, B1, B2, B3, BA, D, D1	H9EW	B	Maintenance Peg Step: Installation of the External Attachment Provisions (Configuration A), per STC SR02680NY is a prerequisite for this installation.	Aero Design Ltd. Document Control List DCL827-2, Revision 1, dated 7 August 2009, Transport Canada Approved 7 August 2009, or later Transport Canada approved revisions.	Aero Design Ltd. ICA 827.93 Rev. 1, dated 4 August 2009, Transport Canada accepted 7 August 2009 or later Transport Canada accepted revision.	N/A	
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA APPROVED MODEL LIST (AML) NO. SR02270NY
AERO Design Ltd.
FOR

INSTALLATION OF QUICK RELEASE MAINTENANCE STEP, MAINTENANCE PEG STEP AND FIXED CABIN STEP

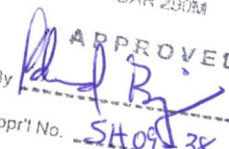
ITEM	PART	REGULATION	MAKE	MODEL	TCDS	CONFIGURATION			REQUIRED DOCUMENTATION		AML AMEND- MENT DATE
						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
1, continued	27	Federal Aviation	Eurocopter	AS 350 B, B1, B2, B3, BA, D, D1	H9EW	C	Fixed Cabin Step	Aero Design Ltd. Document Control List DCL827-3, Revision 3, dated 28 July 2009 or later Transport Canada approved revision.	Aero Design Ltd. ICA 827.92 Rev. 1, dated 28 July 2009, Transport Canada accepted 7 August 2009 or later Transport Canada accepted revision.	N/A	
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA Approved: _____


Anthony Socias
Manager,
New York Aircraft Certification Office

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
82701	Quick Release Maintenance Step Installation	1
82702	Quick Release Maintenance Step Installation (Extended Step)	1
ICA827.91	Instructions for Continued Airworthiness	4
FMS827.90	Flight Manual Supplement	3
FABRICATION DOCUMENTS		
DCL827-11	Document Control List for Step Assembly	3

APPROVAL  Transport Canada E. BURGOIN DAR 290M APPROVED By <i>[Signature]</i> Appr'l No. <i>SH09138</i> Appr'l Date <i>07 Aug 2009</i> Issue No. <i>3</i> Issue Date <i>30 Nov 2010</i> THIS DCL APPROVED 19 DEC 2012	ORIGINAL DATE: 31 October, 2008 REVISION DATE: 04 December 2012	AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 www.aerodesign.ca
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Maintenance Step Installation
	DCL827-1	Rev. 5

AS350 & AS355 SERIES HELICOPTERS

FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN QUICK RELEASE MAINTENANCE STEP

TCCA Supplemental Type Certificate No. SH09-38
FAA Supplemental Type Certificate No. SR02770NY

Sections I, II, III, IV, and V of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section II, Limitations, is mandatory. Section VI and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Eurocopter AS350 and AS355 Series Helicopters when fitted with the Quick Release Maintenance Step Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement refer to the Approved Flight Manual and other approved Flight Manual Supplements.



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I	General	3
II	Limitations	3
III	Emergency ProCedures	3
IV	Normal Procedures	3
V	Performance	3
VI	Installation / removal instructions	4
VII	Weight and Balance	6

Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By
0	4 Aug 2009	None		
1	5 Jan 2010	1, 2, 4-8		
2	16 June 2010	1, 2, 4-7		
3	04 Dec 2012	all		

I GENERAL

No change from basic Approved Flight Manual.

II LIMITATIONS

No change from basic Approved Flight Manual.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

IV NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure the step is locked in position on the beams. Pull up on the forward end of the step to check.

V PERFORMANCE

No change from basic Approved Flight Manual.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The attachment provisions are installed in accordance with Supplemental Type Certificate SH08-16. The maintenance step is installed in accordance with drawing 82701. The extended maintenance step is installed in accordance with drawing 82702.

There are three configurations approved for flight:

- 1) Step in the upper (normal) position or lower (stowed) position.
- 2) Step in the lower (stowed) position with a cargo basket installed.
- 3) Step removed, leaving the attachment provisions in place.

Logbook entry indicating installation or removal of step and which weight and balance amendment is in effect is required when step is installed or removed.

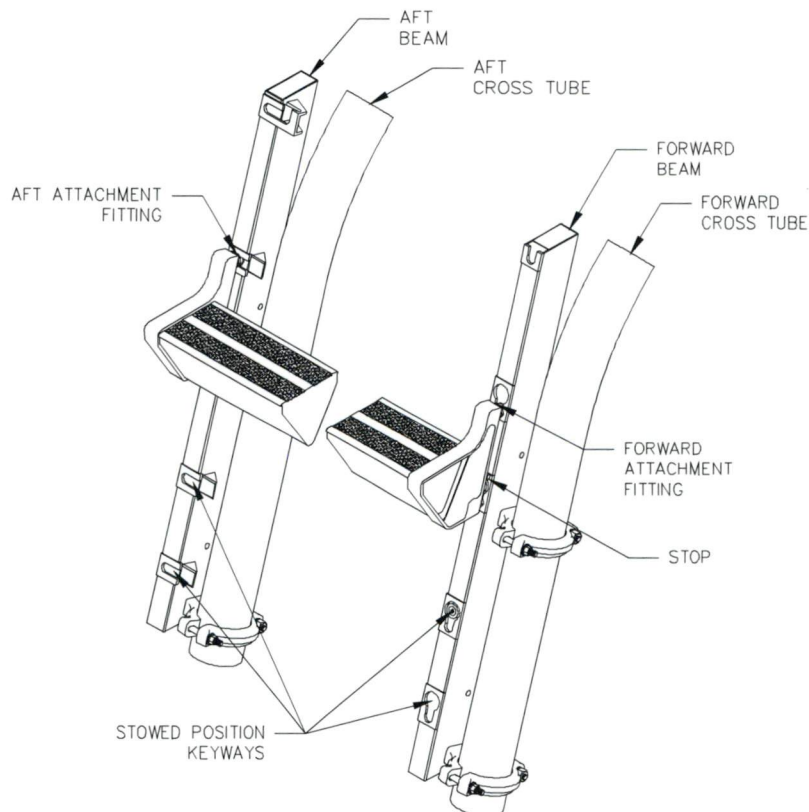


Figure 1 – Step Attachment Features

1. Installation - Refer to Figure 1.

- a) Slide step aft attachments fittings into keyways in aft beam.
- b) At forward end of step, lift step until lower attachment fitting hits stop.
- c) Push step attachment fittings into keyways and slide down until locked.

2. Removal - Refer to Figure 1.

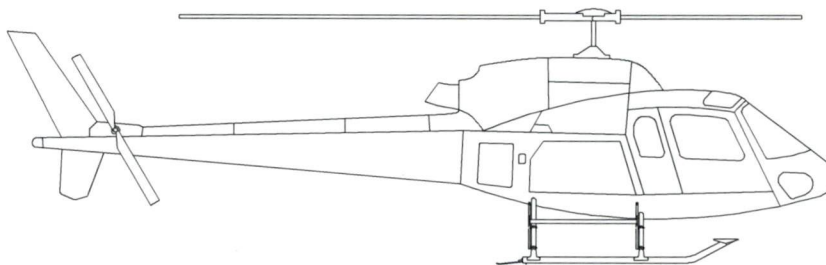
- a) Pull knob on forward beam that is retaining step and lift step until forward attachment fittings are free of keyways.
- b) Slide step forward until free of keyways on aft beam.

VII WEIGHT AND BALANCE

1. MAINTENANCE STEP 82701.

The following weight and balance is for the quick release maintenance step installed in accordance with drawing 82701. Upper (normal) and lower (stowed) positions are provided, either position is approved for flight.

Weight and balance is for Maintenance Step only. Refer to Flight Manual Supplement FMS764.91 for weight and balance for mounting provisions.



Quick Release Maintenance Step

Standard Units

Provisions Configuration	Description	Standard Units				
		Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
<i>Right Hand</i>						
High	Step	4.0	136.0	544.0	37.6	150.4
	Step (stowed)	4.0	136.0	544.0	40.3	161.2
Low	Step	4.0	136.0	544.0	38.3	153.2
	Step (stowed)	4.0	136.0	544.0	41.1	164.4
Eurocopter Pod	Step	4.0	136.0	544.0	40.3	161.2
Compatible	Step (stowed)	4.0	136.0	544.0	43.1	172.4
<i>Left Hand</i>						
High	Step	4.0	136.0	544.0	-37.6	-150.4
	Step (stowed)	4.0	136.0	544.0	-40.3	-161.2
Low	Step	4.0	136.0	544.0	-38.3	-153.2
	Step (stowed)	4.0	136.0	544.0	-41.1	-164.4
Eurocopter Pod	Step	4.0	136.0	544.0	-40.3	-161.2
Compatible	Step (stowed)	4.0	136.0	544.0	-43.1	-172.4

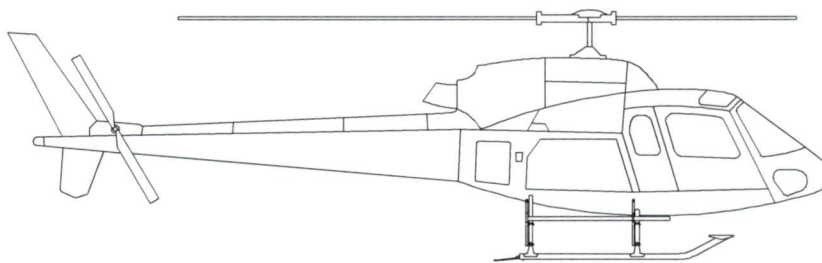
Metric Units

Provisions Configuration	Description	Weight		Longitudinal		Lateral	
		Kg		arm mm	moment mm-Kg	arm mm	moment mm-Kg
<i>Right Hand</i>							
High	Step	1.8		3454	6252	955	1729
	Step (stowed)	1.8		3454	6252	1024	1853
Low	Step	1.8		3454	6252	973	1751
	Step (stowed)	1.8		3454	6252	1044	1890
Eurocopter Pod Compatible	Step	1.8		3454	6252	1024	1853
	Step (stowed)	1.8		3454	6252	1095	1981
<i>Left Hand</i>							
High	Step	1.8		3454	6252	-955	-1729
	Step (stowed)	1.8		3454	6252	-1024	-1853
Low	Step	1.8		3454	6252	-973	-1751
	Step (stowed)	1.8		3454	6252	-1044	-1890
Eurocopter Pod Compatible	Step	1.8		3454	6252	-1024	-1853
	Step (stowed)	1.8		3454	6252	-1095	-1981

2. EXTENDED MAINTENANCE STEP 82702.

The following weight and balance is for the extended quick release maintenance step installed in accordance with drawing 82702. Upper (normal) and lower (stowed) positions are provided, either position is approved for flight.

Weight and balance is for Maintenance Step only. Refer to Flight Manual Supplement FMS764.91 for weight and balance for mounting provisions.



Extended Quick Release Maintenance Step

Standard Units

Provisions Configuration	Description	Standard Units				
		Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
<i>Right Hand</i>						
High	Step	9.0	126.5	1138.5	37.2	334.8
	Step (stowed)	9.0	126.5	1138.5	39.9	359.1
Low	Step	9.0	126.5	1138.5	37.9	341.1
	Step (stowed)	9.0	126.5	1138.5	40.7	366.3
Eurocopter Pod	Step	9.0	126.5	1138.5	39.9	359.1
Compatible	Step (stowed)	9.0	126.5	1138.5	42.7	384.3
<i>Left Hand</i>						
High	Step	9.0	126.5	1138.5	-37.2	-334.8
	Step (stowed)	9.0	126.5	1138.5	-39.9	-359.1
Low	Step	9.0	126.5	1138.5	-37.9	-341.1
	Step (stowed)	9.0	126.5	1138.5	-40.7	-366.3
Eurocopter Pod	Step	9.0	126.5	1138.5	-39.9	-359.1
Compatible	Step (stowed)	9.0	126.5	1138.5	-42.7	-384.3

Metric Units

Provisions Configuration	Description	Weight		Longitudinal		Lateral	
		Kg		arm mm	moment mm-Kg	arm mm	moment mm-Kg
<i>Right Hand</i>							
High	Step	4.1	3213	13085	945	3848	
	Step (stowed)	4.1	3213	13085	1013	4127	
Low	Step	4.1	3213	13085	963	3920	
	Step (stowed)	4.1	3213	13085	1034	4210	
Eurocopter Pod Compatible	Step	4.1	3213	13085	1013	4127	
	Step (stowed)	4.1	3213	13085	1085	4417	
<i>Left Hand</i>							
High	Step	4.1	3213	13085	-945	-3848	
	Step (stowed)	4.1	3213	13085	-1013	-4127	
Low	Step	4.1	3213	13085	-963	-3920	
	Step (stowed)	4.1	3213	13085	-1034	-4210	
Eurocopter Pod Compatible	Step	4.1	3213	13085	-1013	-4127	
	Step (stowed)	4.1	3213	13085	-1085	-4417	

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 827.91

EUROCOPTER AS350 & AS355 SERIES QUICK RELEASE MAINTENANCE STEP

Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Quick Release Maintenance Step installed in accordance with AERO Design Ltd. Document Control List DCL827-1, Revision 5, or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 4
Date: 04 December, 2012

AERO Design Ltd.
Engineering Consultants

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RECORD OF REVISIONS

Revision Number	Issue Date	Date Inserted	By
0			Original Issue
1	23 July 2009		
2	05 January 2010		
3	28 June 2010		
4	04 Dec 2012		

LIST OF EFFECTIVE PAGES

List of Revisions

Revision 0 (Original Issue)	20 October, 2008
Revision 1	23 July, 2009
Revision 2	05 January 2010
Revision 3	28 June 2010
Revision 4	04 December 2012

List of Effective Pages

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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for rotorcraft embodying the Quick Release Maintenance Step as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Quick Release Maintenance Step. Requests for a copy may be made in writing to:

AERO Design Ltd.
2013 39th Avenue N.E.
Calgary, Alberta
T2E 6R7
Fax: 403-250-8333
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

Quick Release Cargo Basket Installation:

The Quick Release Maintenance Step must be installed in the lower (stowed) position prior to installation of the AERO Design Ltd. Cargo Baskets in accordance with STC SH08-16.

The Quick Release Maintenance Step cannot be stowed with the extra large AERO Design Ltd. Cargo Basket, configuration 940, installed.

0-5 GENERAL DESCRIPTION

The Quick Release Maintenance Step installation consists of a step assembly which is attached to quick release mounting provisions installed on the helicopter. These mounting provisions are capable of mounting various equipment including cargo baskets.

The step itself consists of an aluminum extrusion attached to brackets on the ends with fittings that lock into the quick release mechanism.

Two positions are provided: upper for use in maintenance activities and lower for stowing under a cargo basket.

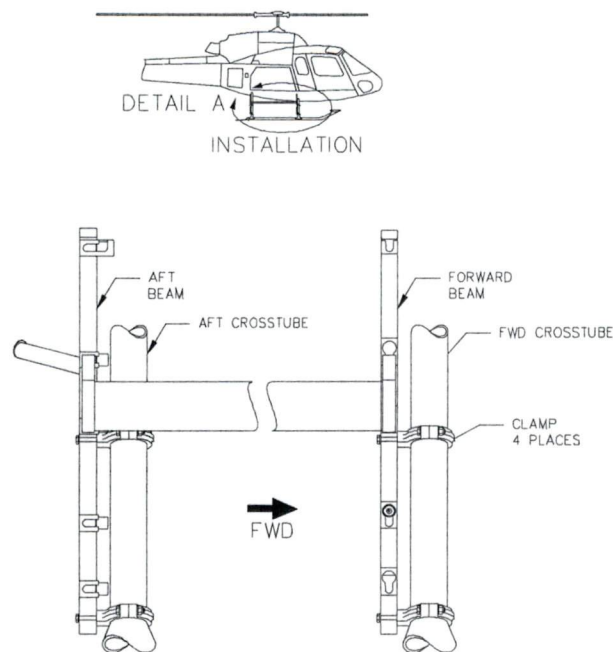


Figure 0-1 – AS350 Quick Release Maintenance Step Installation

The Extended Quick Release Maintenance Step is used to fill the gap between the forward cross tube and the short fixed step when the cargo basket is removed. The installation is identical to the standard Quick Release Maintenance Step.

CHAPTER 4 - AIRWORTHINESS LIMITATIONS

Transport Canada

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

FAA

The Airworthiness Limitations section is FAA approved and specifies inspections and other maintenance required under Secs. 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

No additional airworthiness limitations have been imposed due the installation of the Quick Release Maintenance Step.

CHAPTER 5 – INSPECTION REQUIREMENTS

Refer to ICA764.90 for inspection requirements for the Quick Release Mounting Provisions not included below.

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Quick Release Maintenance Step.

Daily Inspection

1. Inspection Area: Step
 - a) Inspect the step attachment to the beams for condition and security. Ensure quick release mechanism is completely extended, flush with the outboard surface of the beam.

100 Hour or Annual Inspection

Refer to the ICA for the Quick Release Cargo Basket for each specific model of helicopter for inspection of mounting provisions.

1. Inspection Area: Step
 - a) Visually inspect welds attaching end brackets to step extrusion for cracks, corrosion or other damage.
 - b) Visually inspect step for damage.
 - c) Visually inspect lugs attaching the step to the beams for security and damage.

Special Inspections

1. Following a hard landing inspect the Quick Release Maintenance Step installation in accordance with the 100 hour or annual inspection listed above.
2. Any joints using a helical thread insert (Helicoil) shall be inspected on assembly in accordance with the procedure for checking self locking nuts and screws specified in the Eurocopter Standard Practices Manual, Section 20.02.05.601

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

Refer to the ICA for the Quick Release Cargo Basket for each specific model of helicopter for further limits and repair instructions.

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Step Assembly

Part	Type of Damage	Max. Allowable	Repair
Step End Bracket	Corrosion	0.010" deep	Blend up to 0.010" deep with scotchbrite.
	Scratches / Nicks	0.010" deep x 0.5" long	Blend up to 0.010" deep with scotchbrite.
	Cracks/Dents	None	N/A
	Bent Lugs	None	N/A
Centre Step Section	Corrosion	2" x 2" x 0.010" deep	Blend up to 0.010" deep with scotchbrite.
	Scratches / Nicks	0.010" deep x 1" long	Blend up to 0.010" deep with scotchbrite.
	Cracks / Dents	None	N/A
	Permanent Deflection of Step	0.25" max at middle of step	None

2. Steel Beams

Part	Type of Damage	Max. Allowable	Repair
Steel Beam	Corrosion	0.015" deep	Blend up to 0.015" deep with scotchbrite.
	Scratches / Nicks	0.015" deep x 0.125" wide	Blend up to 0.015" deep with scotchbrite.
	Cracks/Dents	None	N/A
	Elongation of Keyway	See figure 5-1 and 5-2	None
	Widening of slots	15/32" (0.469) diameter maximum (check with a 15/32" drill)	None

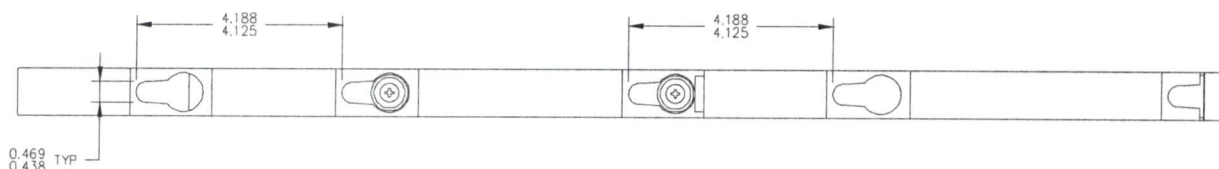


Figure 5-1 – Critical Keyway Dimensions (Forward Beam)

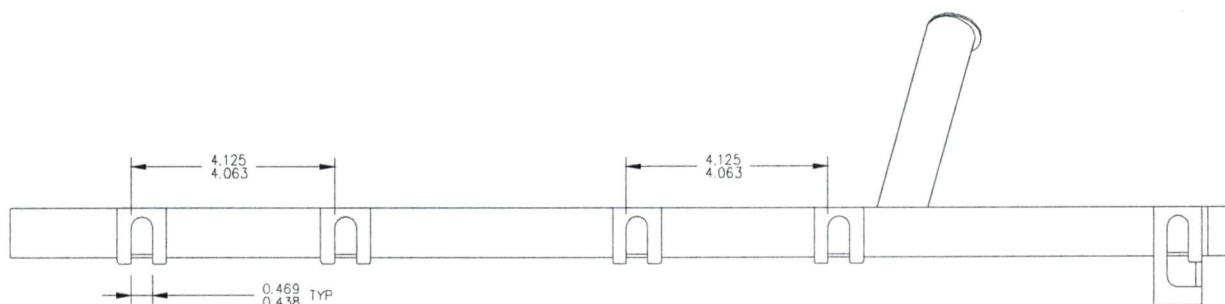


Figure 5-2 – Critical Keyway Dimensions (Aft Beam)

3. Step Welds

Cracks up to 0.25" long may be repaired as follows:

- Clean area of paint.
- Grind away weld in area of crack.
- T.I.G. weld per MIL-STD-2219 Class "C" using ER4043 filler rod. Do not grind flush.
- Touch up paint as noted in section 5-3.

4. Helical Thread Inserts

Helical thread inserts (Helicoils) found to be damaged shall be repaired in accordance with the Eurocopter Standard Practices Manual, Section 20.03.04.404.

Part numbers:

1/4-28 insert: 3591-4CN375

3/8-24 insert: 3591-6CN563

5-3 PROTECTIVE TREATMENT INFORMATION

1. Step Assembly

The Step Assembly is supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint. The tread area has two 1" strips of 3M Safety-Walk grip tape. If the grip tape is damaged, replace with equivalent grip tape, or apply Randolph X1567 Wingwalk grip paint or equivalent to the top surface.

CHAPTER 25 – EQUIPMENT AND FURNISHINGS

The Quick Release Maintenance Step Installation may be applied to the right and/or left side of the helicopter. Refer to the ICA for the Quick Release Cargo Basket for each specific model of helicopter for installation, inspection, repair and removal instructions for the mounting provisions.

25-1 STEP INSTALLATION

Refer to Figure 25-1.

1. Set aft attachment fittings into keyways in aft beam.
2. At forward beam, lift step until lower attachment fitting hits stop.
3. Push forward attachment fittings into keyways and slide step down until locked.

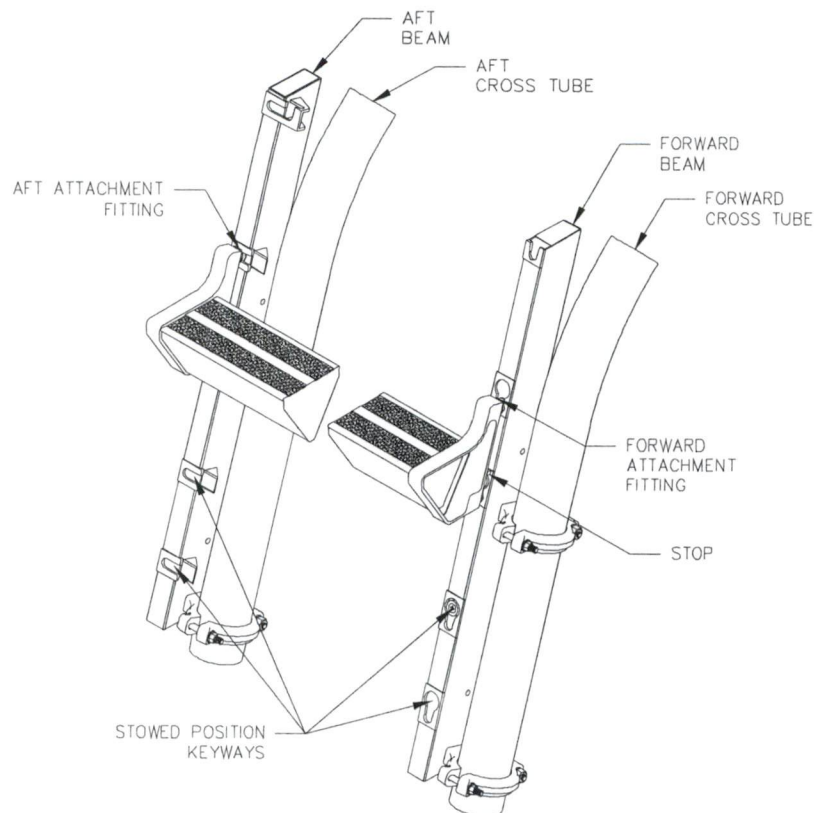


Figure 25-1 – Step Attachment

25-2 STEP REMOVAL

Refer to Figure 25-1.

1. Pull knob at bottom end of forward beam and lift step until forward attachment fittings are free of keyways.
2. Slide step forward until free of keyways on aft beam.

25-3 WEIGHT AND BALANCE

Different weight and balance configurations are required for the pilot. The first is the installation of Mounting Provisions only. The second is Provisions and Step in the upper position. The third is Provisions and Step in the lower (stowed) position.

Standard Quick Release Maintenance Step

Standard						
P/N *	Description	Weight	Longitudinal		Lateral **	
		lb	arm in	moment in-lb	arm in	moment in-lb
<i>Low Provisions Configuration</i>						
78602-01-XX	Low Provisions Installation	6.4	135.6	867.5	37.2	238.0
82716-01	Maintenance Step	4.0	136.0	544.0	38.3	153.2
82701-01	Step Installation	10.4	135.7	1411.5	37.6	391.2
78602-01-XX	Low Provisions Installation	6.4	135.6	867.5	37.2	238.0
82716-01	Maintenance Step (stowed)	4.0	136.0	544.0	41.1	164.4
82701-01	Step Installation (stowed)	10.4	135.6	1411.5	38.7	402.4
<i>High Provisions Configuration</i>						
78602-02-XX	High Provisions Installation	6.4	135.6	867.5	36.5	233.8
82716-01	Quick Release Maintenance Step	4.0	136.0	544.0	37.6	150.4
82701-01	Step Installation	10.4	135.6	1411.5	36.9	384.2
78602-02-XX	High Provisions Installation	6.4	135.6	867.5	36.5	233.8
82716-01	Quick Release Maintenance Step	4.0	136.0	544.0	40.3	161.2
82701-01	Step Installation (stowed)	10.4	135.6	1411.5	38.0	395.0
<i>Eurocopter Pod Compatible Configuration</i>						
78603-01-XX	Eurocopter Pod Compatible Provisions Installation	6.8	135.4	921.0	38.8	263.6
82716-01	Quick Release Maintenance Step	4.0	136.0	544.0	40.3	161.2
82701-01	Step Installation	10.8	135.6	1465.0	39.3	424.8
78603-01-XX	Eurocopter Pod Compatible Provisions Installation	6.8	135.4	921.0	38.8	263.6
82716-01	Quick Release Maintenance Step	4.0	136.0	544.0	43.1	172.4
82701-01	Step Installation (stowed)	10.8	135.6	1465.0	40.4	436.0

* -XX indicates side. Right side is -01, Left side is -02.

**Lateral arm is negative for left side installation.

Table 25-1 – Quick Release Maintenance Step Weight and Balance

Standard Quick Release Maintenance Step

P/N *	Description	Metric				
		Weight	Longitudinal		Lateral **	
	<i>Low Provisions Configuration</i>	kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78602-01-XX	Low Provisions Installation	2.9	3443	9971	945	2735
82716-01	Maintenance Step	1.8	3454	6252	973	1751
82701-01	Step Installation	4.7	3447	16223	955	4496
78602-01-XX	Low Provisions Installation	2.9	3443	9971	945	2735
82716-01	Maintenance Step (stowed)	1.8	3454	6252	1044	1890
82701-01	Step Installation (stowed)	4.7	3447	16223	983	4625
<i>High Provisions Configuration</i>						
78602-02-XX	High Provisions Installation	2.9	3443	9971	928	2688
82716-01	Quick Release Maintenance Step	1.8	3454	6252	955	1729
82701-01	Step Installation	4.7	3447	16223	938	4416
78602-02-XX	High Provisions Installation	2.9	3443	9971	928	2688
82716-01	Quick Release Maintenance Step	1.8	3454	6252	1024	1853
82701-01	Step Installation (stowed)	4.7	3447	16223	965	4540
<i>Eurocopter Pod Compatible Configuration</i>						
78603-01-XX	Eurocopter Pod Compatible Provisions Installation	3.1	3440	10585	985	3030
82716-01	Quick Release Maintenance Step	1.8	3454	6252	1024	1853
82701-01	Step Installation	4.9	3445	16837	999	4882
78603-01-XX	Eurocopter Pod Compatible Provisions Installation	3.1	3440	10585	985	3030
82716-01	Quick Release Maintenance Step	1.8	3454	6252	1095	1981
82701-01	Step Installation (stowed)	4.9	3445	16837	1025	5011

* -XX indicates side. Right side is -01, Left side is -02.

**Lateral arm is negative for left side installation.

Table 25-2 – Quick Release Maintenance Step Weight and Balance

Extended Quick Release Maintenance Step

Standard

P/N *	Description	Weight	Longitudinal		Lateral **	
		lb	arm in	moment in-lb	arm in	moment in-lb
78602-01-XX	Low Provisions Installation	6.4	135.6	867.5	37.2	238.0
82711-01-XX	Maintenance Step	9.0	126.5	1138.5	37.9	341.1
82702-01-XX	Extended Step Installation	15.4	130.3	2006.0	37.6	579.1
78602-01-XX	Low Provisions Installation	6.4	135.6	867.5	37.2	238.0
82711-01-XX	Maintenance Step (stowed)	9.0	126.5	1138.5	40.7	366.3
82702-01-XX	Ext. Step Installation (stowed)	15.4	130.3	2006.0	39.2	604.3
<i>High Provisions Configuration</i>						
78602-02-XX	High Provisions Installation	6.4	135.6	867.5	36.5	233.8
82711-01-XX	Quick Release Maintenance Step	9.0	126.5	1138.5	37.2	334.8
82702-01-XX	Extended Step Installation	15.4	130.3	2006.0	36.9	568.6
78602-02-XX	High Provisions Installation	6.4	135.6	867.5	36.5	233.8
82711-01-XX	Quick Release Maintenance Step	9.0	126.5	1138.5	39.9	359.1
82702-01-XX	Ext. Step Installation (stowed)	15.4	130.3	2006.0	38.5	592.9
<i>Eurocopter Pod Compatible Configuration</i>						
78603-01-XX	Eurocopter Pod Compatible Provisions Installation	6.8	135.4	921.0	38.8	263.6
82711-01-XX	Quick Release Maintenance Step	9.0	126.5	1138.5	39.9	359.1
82702-01-XX	Extended Step Installation	15.8	130.3	2059.5	39.4	622.7
78603-01-XX	Eurocopter Pod Compatible Provisions Installation	6.8	135.4	921.0	38.8	263.6
82711-01-XX	Quick Release Maintenance Step	9.0	126.5	1138.5	42.7	384.3
82702-01-XX	Ext. Step Installation (stowed)	15.8	130.3	2059.5	41.0	647.9

* -XX indicates side. Right side is -01, Left side is -02.

**Lateral arm is negative for left side installation.

Table 25-3 – Extended Quick Release Maintenance Step Weight and Balance

Extended Quick Release Maintenance Step

P/N *	Description	Metric				
		Weight	Longitudinal		Lateral **	
	<i>Low Provisions Configuration</i>	kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78602-01-XX	Low Provisions Installation	2.9	3444	9974	945	2736
82711-01-XX	Maintenance Step	4.1	3213	13085	963	3920
82702-01-XX	Extended Step Installation	7.0	3309	23059	955	6657
78602-01-XX	Low Provisions Installation	2.9	3444	9974	945	2736
82711-01-XX	Maintenance Step (stowed)	4.1	3213	13085	1034	4210
82702-01-XX	Ext. Step Installation (stowed)	7.0	3309	23059	997	6946
<i>High Provisions Configuration</i>						
78602-02-XX	High Provisions Installation	2.9	3444	9974	927	2685
82711-01-XX	Quick Release Maintenance Step	4.1	3213	13085	945	3848
82702-01-XX	Extended Step Installation	7.0	3309	23059	937	6533
78602-02-XX	High Provisions Installation	2.9	3444	9974	927	2685
82711-01-XX	Quick Release Maintenance Step	4.1	3213	13085	1013	4127
82702-01-XX	Ext. Step Installation (stowed)	7.0	3309	23059	978	6812
<i>Eurocopter Pod Compatible Configuration</i>						
78603-01-XX	Eurocopter Pod Compatible Provisions Installation	3.1	3439	10582	986	3032
82711-01-XX	Quick Release Maintenance Step	4.1	3213	13085	1013	4127
82702-01-XX	Extended Step Installation	7.1	3310	23667	1001	7160
78603-01-XX	Eurocopter Pod Compatible Provisions Installation	3.1	3439	10582	986	3032
82711-01-XX	Quick Release Maintenance Step	4.1	3213	13085	1085	4417
82702-01-XX	Ext. Step Installation (stowed)	7.1	3310	23667	1042	7449

* -XX indicates side. Right side is -01, Left side is -02.


** Lateral arm is negative for left side installation.

Table 25-4 – Extended Quick Release Maintenance Step Weight and Balance

25-4 STRUCTURAL FASTENER DATA

Refer to Standard Practices Manual for torque values not listed in this ICA.

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
82707	Maintenance Peg Step Installation	1
ICA827.93	Instructions for Continued Airworthiness	2
FABRICATION DOCUMENTS		
82740	Step Assembly	1
ENGINEERING DOCUMENTS		
ER827.01	Engineering Report	2
<div> <div> APPROVAL: <div>  </div> </div> <div> ORIGINAL DATE: 7 November, 2008 REVISION DATE: 29 June 2010 </div> <div> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 www.aerodesign.ca </div> </div>		
SHEET 1 OF 1		Eurocopter AS350 & AS355 Series Maintenance Peg Step Installation
DCL827-2		Rev. 3

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 827.93

EUROCOPTER AS350 & AS355 SERIES MAINTENANCE PEG STEP

Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Maintenance Peg Step installed in accordance with AERO Design Ltd. Document Control List DCL827-2, Revision 3, or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 2
Date: 28 June 2010

AERO Design Ltd.
Engineering Consultants

2013 – 39th Avenue N.E., Calgary, Alberta T2E 6R7
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RECORD OF REVISIONS

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0	4 August 2009		Original Issue
1	17 December 2009		
2	28 June 2010		

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Revision 1
Revision 2

4 August 2009
17 December 2009
28 June 2010

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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for rotorcraft embodying the Maintenance Peg Step as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Maintenance Peg Step. Requests for a copy may be made in writing to:

AERO Design Ltd.
2013 39th Avenue N.E.
Calgary, Alberta
T2E 6R7
Fax: 403-250-8333
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

The Maintenance Peg Step (82707-01/-02) is not compatible with Attachment Provisions in accordance with STC SH08-16. A peg step is included as an integral part of the Attachment Provisions. The Maintenance Peg Step may be installed on the opposite side to the Attachment Provisions.

0-5 GENERAL DESCRIPTION

The Maintenance Peg Step Installation (82707-01/-02) consists of a fitting attached to the aft cross tube with a tube that sticks out inboard and aft from the cross tube. The Maintenance Peg Step is required to aid access to the helicopter for maintenance activities.

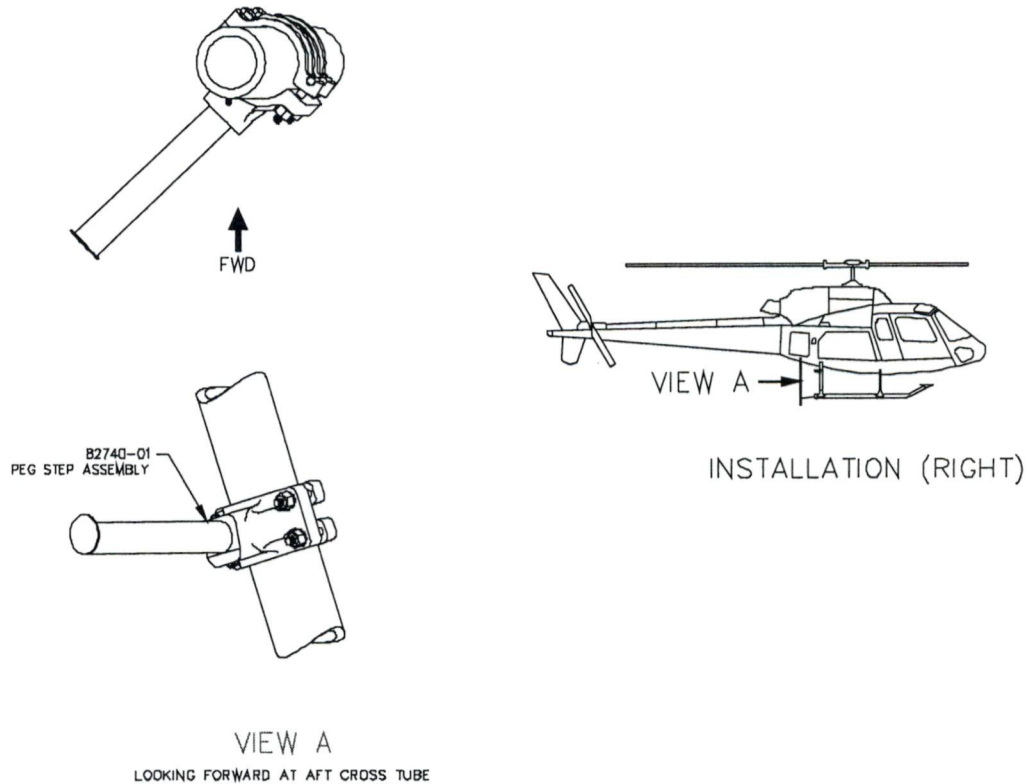


Figure 0-1 – Maintenance Peg Step Installation

CHAPTER 4 - AIRWORTHINESS LIMITATIONS

Transport Canada

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

FAA

The Airworthiness Limitations section is FAA approved and specifies maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

No additional airworthiness limitations have been imposed due the installation of the Maintenance Peg Step.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Maintenance Peg Step.

Daily Inspection

1. Inspection Area: Step
 - a) Inspect the Step for condition and security.

100 Hour or Annual Inspection

1. Inspection Area: Step
 - a) Visually inspect all mounting hardware for condition and security.
 - b) Visually inspect step for cracks, corrosion or other damage.
 - c) Visually inspect step tube attachment to socket fitting. Step tube must not be loose in socket.

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Maintenance Peg Step (82707 Configuration)

Part	Type of Damage	Max. Allowable	Repair
Step Tube	Corrosion	0.010" deep	Blend up to 0.010" deep with scotchbrite.
	Scratches / Nicks	0.010" deep x 0.5" long	Blend up to 0.010" deep with scotchbrite.
	Cracks	None	N/A
	Permanent bend	*Note	None
Fitting	Corrosion	0.030" deep	Blend up to 0.030" deep with scotchbrite.
	Scratches / Nicks	0.060" deep x 0.5" long	Blend up to 0.060" deep with scotchbrite.
	Cracks	None	N/A
	Elongation of socket hole	None	N/A

*Note: Minor bending of the step tube that does not cause the tube to become loose in the socket is acceptable.

5-3 PROTECTIVE TREATMENT INFORMATION

1. Step Assembly

The Step Assembly is supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint.

The step tube has a strip of 1" wide 3M Safety-Walk grip tape applied to the top surface. If the grip tape is damaged replace with equivalent grip tape, or apply Randolph X1567 Wingwalk grip paint or equivalent.

CHAPTER 25 – EQUIPMENT AND FURNISHINGS

The Maintenance Peg Step Installation may be applied to the right and/or left side of the helicopter.

25-1 STEP INSTALLATION

Configuration: 82701-01/-02

1. Locate Step Assembly 82740-01 on aft cross tube. Fasten one side with two (2) AN4-14A Bolts, AN960-416 Washers, and MS21044N4 Nuts; fasten opposite side with two (2) FT4F-175H T-Bolts, AN960-416 Washers and MS21044N4 Nuts. Rotate step until horizontal, approximately 45 degrees to the cross tube. Torque nuts to 50-70 in-lbs.

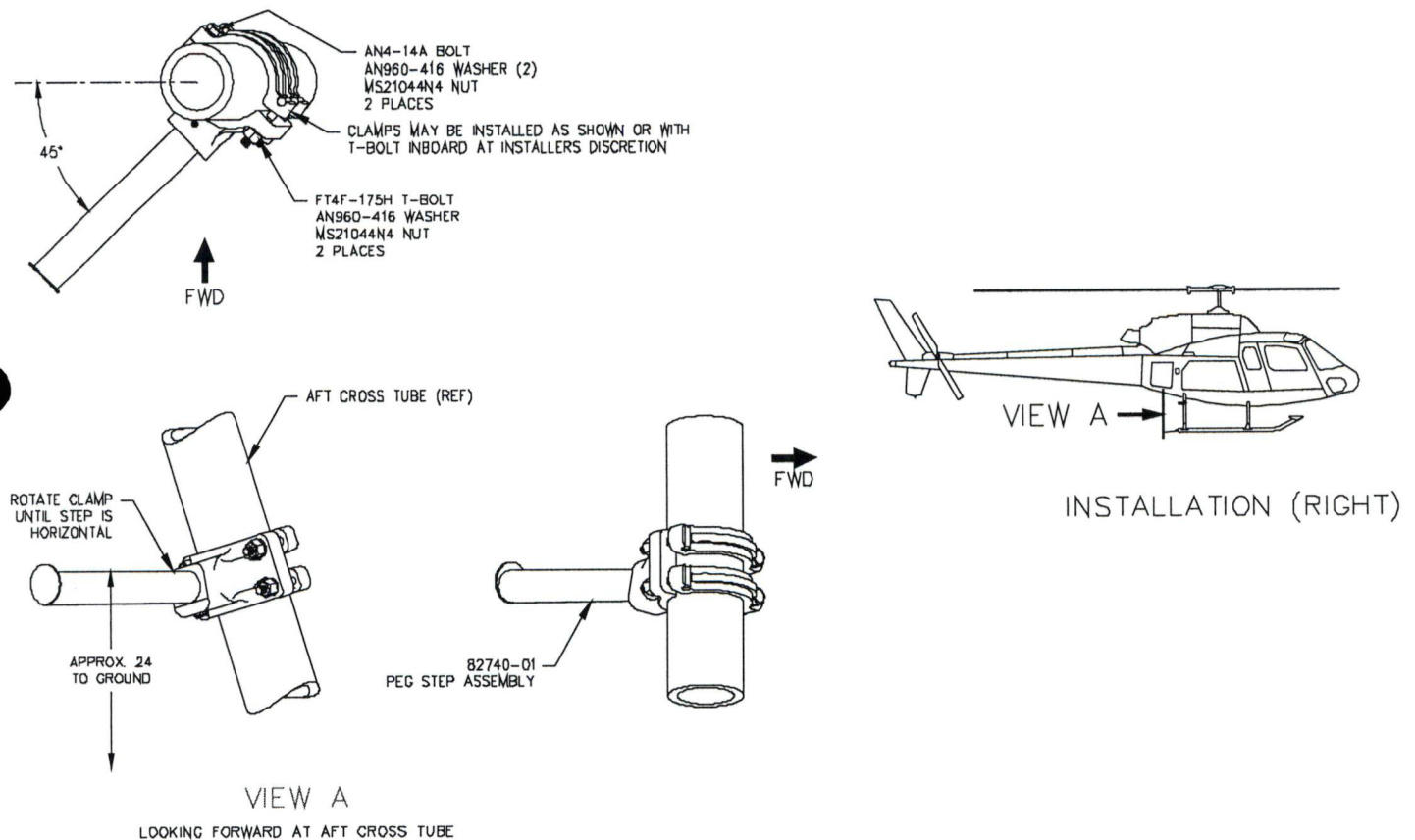


Figure 2 – Maintenance Peg Step Attachment Details

25-2 STEP REMOVAL

Refer to Figure 2.

1. Remove AN4-14A Bolt, FT4F-175H T-Bolt, AN960-416 Washers, and MS21044N4 Nuts attaching Step Assembly to aft cross tube. Remove Step Assembly.

25-3 WEIGHT AND BALANCE

82707 Configuration

Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
82707-01	Maintenance Peg Step Inst'n (Right)	1.0	163.8	163.8	32.5	32.5
82707-02	Maintenance Peg Step Inst'n (Left)	1.0	163.8	163.8	-32.5	-32.5

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	Moment mm-kg
82707-01	Maintenance Peg Step Inst'n (Right)	0.45	4160.5	1872.2	825.5	371.5
82707-02	Maintenance Peg Step Inst'n (Left)	0.45	4160.5	1872.2	-825.5	-371.5

25-4 STRUCTURAL FASTENER DATA

Refer to Standard Practices Manual for torque values not listed in this ICA.

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
82705	Long Cabin Step Installation	1
82706	Short Cabin Step Installation	1
82709	Full Length Cabin Step Installation	0
82750	Short Commuter Cabin Step Installation	0
82751	Long Commuter Cabin Step Installation	0
82752	Full Length Commuter Cabin Step Installation	0
82770	Short Cabin Step Installation – DART Conversion	0
82771	Long Cabin Step Installation – DART Conversion	0
82772	Short Cabin Step Installation – DART Conversion (Old Extrusion)	0
82773	Long Cabin Step Installation – DART Conversion (Old Extrusion)	0
ICA827.92	Instructions for Continued Airworthiness	3
FABRICATION DOCUMENTS		
DCL827-13	Document Control List for Step Assembly	5

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SHEET 1 OF 1		Eurocopter AS350 & AS355 Series Fixed Cabin Step Installation
<h2 style="margin: 0;">DCL827-3</h2>		Rev. 6

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 827.92

EUROCOPTER AS350 & AS355 SERIES FIXED CABIN STEPS

Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Fixed Cabin Step installed in accordance with AERO Design Ltd. Document Control List DCL827-3, Revision 6, or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 3
Date: 29 November 2012

AERO Design Ltd.
Engineering Consultants

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Revision 2	28 June 2010
Revision 3	29 November 2012

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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for rotorcraft embodying the Fixed Cabin Step as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Fixed Cabin Step. Requests for a copy may be made in writing to:

AERO Design Ltd.
2013 39th Avenue N.E.
Calgary, Alberta
T2E 6R7
Fax: 403-250-8333
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

The Long Fixed Cabin Step (82705-01) and Long Fixed Commuter Cabin Step (82751-01-XX) are NOT compatible with the AERO Design Ltd. Long or Extra Large Cargo Baskets installed in accordance with STC SH08-16 (drawing 78401 or 94001), but may be installed on the opposite side of the helicopter to the Long or Extra Large Cargo Basket.

The Short Fixed Cabin Step (82706-01) and Short Fixed Commuter Cabin Step (82750-01-XX) are compatible with all AERO Design Ltd. Cargo Baskets installed in accordance with STC SH08-16 in any mounting configuration.

The Full Length Cabin Step (82709-01) and Full Length Commuter Cabin Step (82752-01-XX) are NOT compatible with any AERO Design Ltd. Cargo Baskets installed in accordance with STC SH08-16, but may be installed on the opposite side of the helicopter to the Cargo Basket.

0-5 GENERAL DESCRIPTION

The Fixed Cabin Step installation consists of a step assembly which is attached to the forward end of the skid tube, running aft to the aft cross tube (full length configuration), to the forward cross tube (long configuration), or a bracket attached to the skid tube located under the door (short configuration). The different configurations are provided to accommodate AERO Design Ltd. Quick Release Cargo Baskets while providing the longest step possible for access to the cabin.

The step itself consists of an aluminum extrusion attached to a sheet metal assembly that attaches to the forward end of the skid tube. Aluminum brackets are used to attach the aft end.

The commuter step is an additional section added to the basic step that provides 3 steps up to the cabin. The steps are similar to the non-commuter configuration, but are reinforced at the forward end.

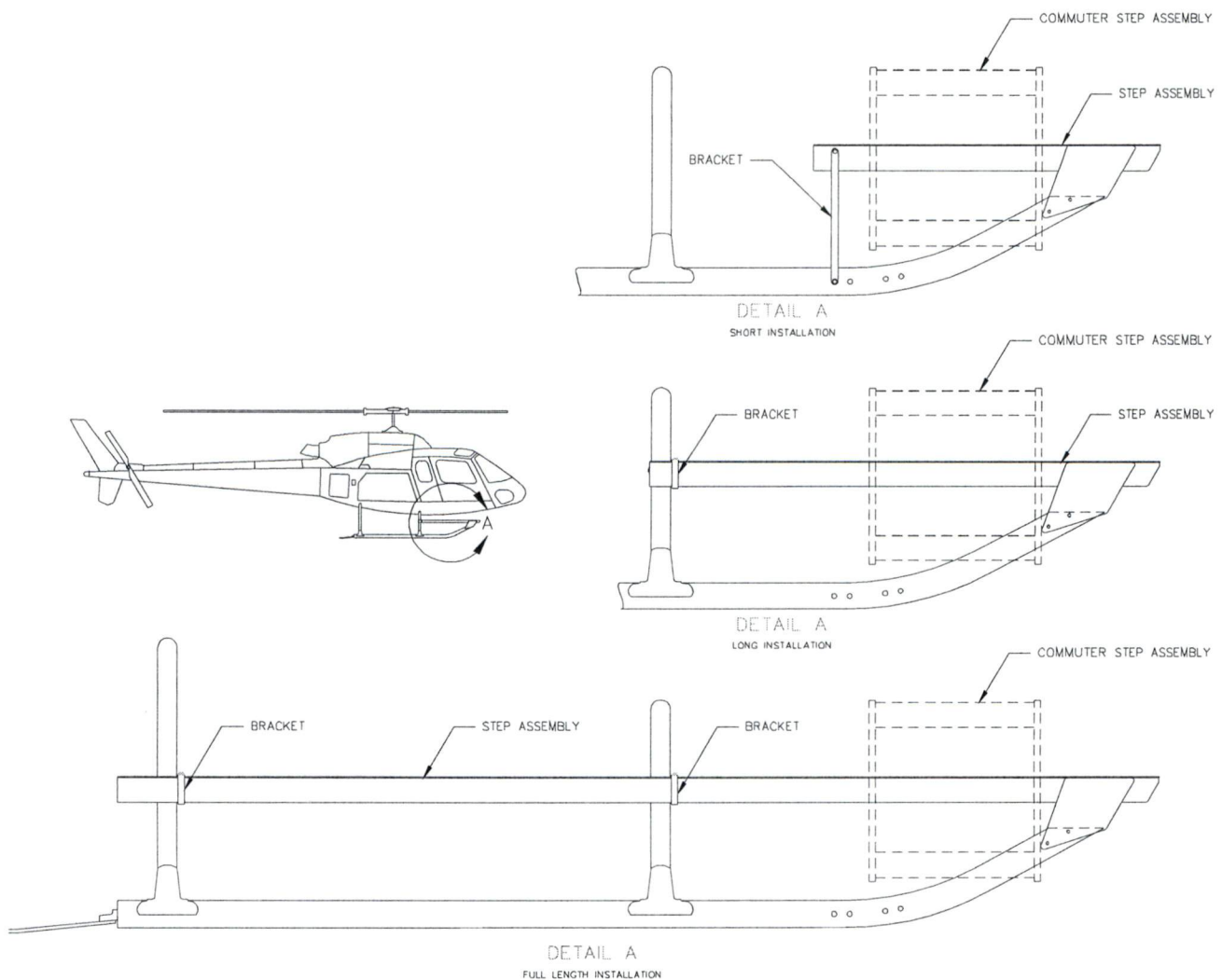


Figure 0-1 – AS350 Fixed Cabin Step Installations

CHAPTER 4 - AIRWORTHINESS LIMITATIONS

Transport Canada

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

FAA

The Airworthiness Limitations section is FAA approved and specifies inspections and other maintenance required under Secs. 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

No additional airworthiness limitations have been imposed due the installation of the Fixed Cabin Steps.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Fixed Cabin Step.

Daily Inspection

1. Inspection Area: Step
 - a) Full Length step only: Inspect the bracket and clamp attaching the step to the aft cross tube for condition and security.
 - b) Long and Full Length steps only: Inspect the bracket and clamp attaching the step to the forward cross tube for condition and security.
 - c) Short step only: Inspect bracket attaching aft end of step to skid tube for condition and security.
 - d) Inspect the forward step attachment sheet metal bracket for condition and security.
 - e) Commuter steps only: Inspect the attachments of the commuter step section to the basic step for condition and security.

100 Hour or Annual Inspection

1. Inspection Area: Step
 - a) Visually inspect all mounting hardware for condition and security.
 - b) Visually inspect step, mounting brackets, and clamps for condition and security.
 - c) Long and Full Length steps only: Check clamps for slipping on the cross tube(s). Step should be parallel to the ground (+/- 0.25"), use height at attachment to forward tip of skid tube as a reference.

Special Inspections

1. Following a hard landing inspect the Fixed Cabin Step installation in accordance with the 100 hour or annual inspection listed above.
2. Any joints using a helical thread insert (Helicoil) shall be inspected on assembly in accordance with the procedure for checking self locking nuts and screws specified in the Eurocopter Standard Practices Manual, Section 20.02.05.601

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Step Assembly (including commuter step section)

Part	Type of Damage	Max. Allowable	Repair
Brackets, Clamps	Corrosion	0.010" deep	Blend up to 0.010" deep with scotchbrite.
	Scratches / Nicks	0.010" deep x 0.5" long	Blend up to 0.010" deep with scotchbrite.
	Cracks/Dents	None	N/A
	Bent Lugs	None	N/A
Step Section	Corrosion	2" x 2" x 0.010" deep	Blend up to 0.010" deep with scotchbrite.
	Scratches / Nicks	0.010" deep x 1" long	Blend up to 0.010" deep with scotchbrite.
	Cracks / Dents	None	N/A
	Permanent Deflection of Step	0.25" max at middle of step	None

2. Helical Thread Inserts

Helical thread inserts (Helicoils) found to be damaged shall be repaired in accordance with the Eurocopter Standard Practices Manual, Section 20.03.04.404.

Part numbers:

1/4-28 insert: 3591-4CN375

5-3 PROTECTIVE TREATMENT INFORMATION

1. Step Assembly

The Step Assembly is supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint.

The tread areas have two strips of 3M Safety-Walk grip tape. If the grip tape is damaged replace with equivalent grip tape, or apply Randolph X1567 Wingwalk grip paint or equivalent to the top surface.

2. Brackets / Clamps

The brackets and clamps are supplied painted white. If the paint is damaged, touch up with white polyurethane paint.

CHAPTER 25 – EQUIPMENT AND FURNISHINGS

The Fixed Cabin Step Installation may be applied to the right and/or left side of the helicopter.

Installation of the Commuter Step (any configuration) is identical to the standard installation. Commuter Steps are “sided” right and left. The side is identified in the part number by the last dash number: -01 is Right, -02 is Left.

25-1 SHORT STEP INSTALLATION

Configuration: 82706-01 (standard), 82750-01-XX (commuter), 82770-01 (DART Conversion), 82772-01 (DART Conversion, old style)

Refer to Figure 25-1 and 25-2.

1. Remove existing bolt, nut, and cups from last float provision hole at forward end of skid tube.
2. Insert Bushing 82733-02 into hole in skid tube. Set Bracket 82733-01 (82782-01 for DART conversion) over bushing. Insert AN4-42A bolt with AN960-416 washer through bracket and bushing. Install AN960-416 washer and MS21044N4 nut on bolt. Do not tighten nut.
3. Set step assembly (82715-01 standard, 82718-01-XX commuter, 82770-10 DART Conversion, 82772-10 Dart Conversion) on bracket. Install AN4-42A Bolt, AN960-416 Washers, and MS21044N4 Nut through bushing in step. Do not tighten nut.

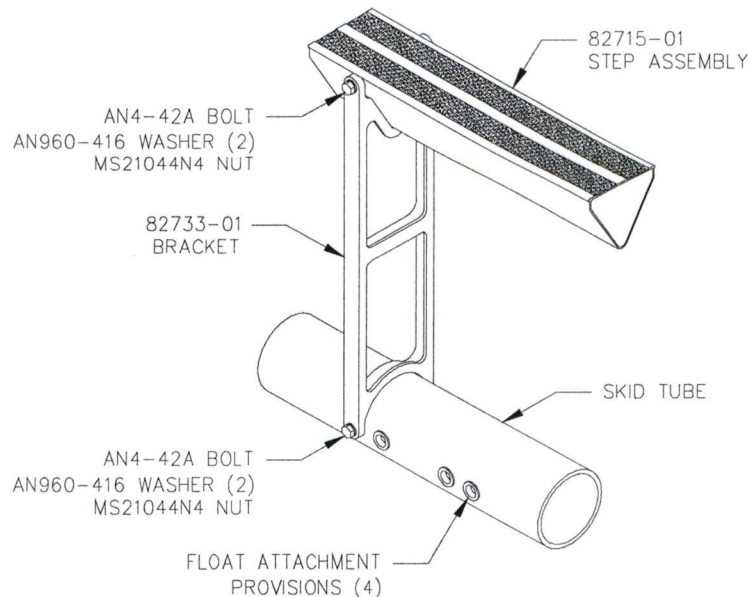


Figure 25-1 – Short Step Aft Attachment

4. At the forward end of the step, install two (2) AN3-35A Bolts, AN960-10 Washers, and MS21044N3 Nuts through existing holes in forward end of skid tube.

DART Conversion only: use two (2) AN3-37A Bolts.

5. Tighten all hardware as follows:

AN3 Bolts: 20-25 in-lbs

AN4 Bolts: 50-70 in-lbs

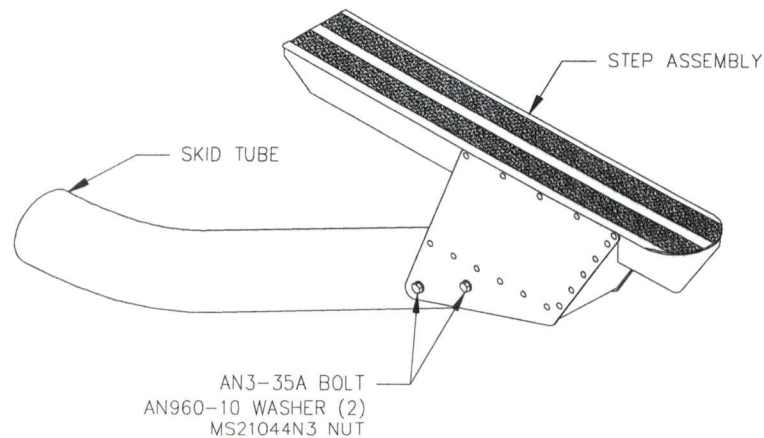


Figure 25-2 – Forward Step Attachment

25-2 SHORT STEP REMOVAL

Configuration: 82706-01 (standard), 82750-01-XX (commuter), 82770-01 (DART Conversion), 82772-01 (DART Conversion, old style)

Refer to figure 25-1 and 25-2.

1. Remove AN3-35A Bolts (or AN3-37A Bolts), AN960-10 Washers, and MS21044N3 Nuts attaching forward end of step to skid tube.
2. Remove AN4-42A Bolt, AN960-416 Washers, and MS21044N4 Nut attaching step to bracket. Remove step.
3. Remove AN4-42A Bolt, AN960-416 Washers, and MS21044N4 Nut attaching bracket to skid tube. Remove bracket and bushing from skid tube.
4. Install 22201TK050-072X Screw, 350A41-1095-20 Cup (2), 23119TK050X Washer, and ASN52320BH050N Nut in hole in skid tube. Refer to Illustrated Parts book and Maintenance Manual.

25-3 LONG STEP INSTALLATION

Configuration: 82705-01 (standard), 82751-01-XX (commuter), 82771-01 (DART Conversion), 82773-01 (DART Conversion, old style)

Refer to Figure 25-3 thru 25-5.

1. Attach Clamp Assembly 78620-01 to Bracket 82723-01 (82780-01 or 82785 for DART Conversion) with one (1) AN4-4A Bolt and AN960-416 Washer. Orient clamp with T-bolt side inboard, and bracket forward. Torque bolt to 30-40 in-lbs. Slide bracket with clamp onto aft end of step.

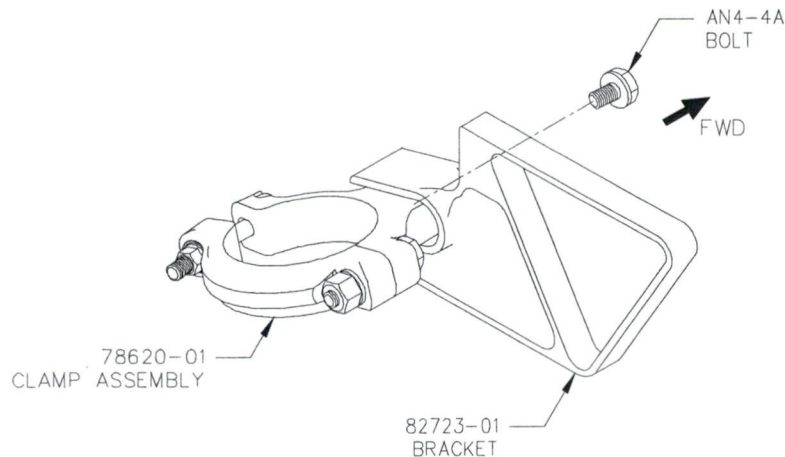


Figure 25-3 – Clamp and Bracket Assembly
(Right side shown, left side opposite)

2. Locate forward end of step assembly (82717-01 standard, 82718-02-XX commuter) on skid tube. Install two (2) AN3-35A Bolts, AN960-10 Washers, and MS21044N3 Nuts into existing holes in forward end of skid tube.

DART Conversion Only: Use step assembly 82771-10 or 82773-10; two (2) AN3-37A bolts.

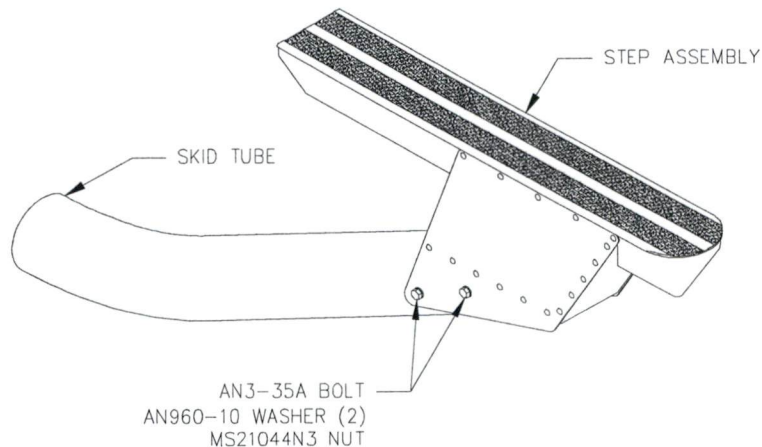


Figure 25-4 – Forward Step Attachment

3. Slide clamp and bracket assembly aft along step until clamp can be attached to forward cross-tube.

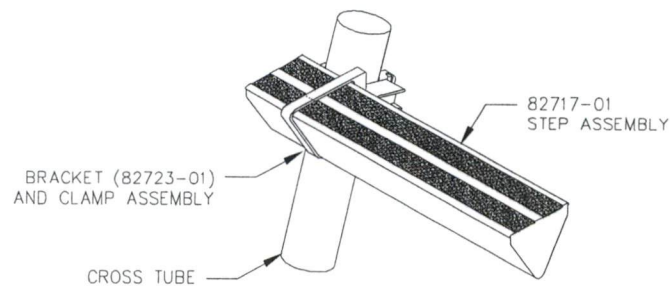


Figure 25-5 – Long Step Aft Attachment

4. Tighten clamp bolts to prevent the clamp from slipping on the cross tube.
5. Level the step parallel to the ground (+/- 0.25"). Nominal height is 17.5".
6. Tighten all hardware as follows:
 - AN3 Bolts: 20-25 in-lbs
 - AN4 Bolts: 50-70 in-lbs

25-4 LONG STEP REMOVAL

Configuration: 82705-01 (standard), 82751-01-XX (commuter), 82771-01 (DART Conversion), 82773-01 (DART Conversion, old style)

Refer to Figure 25-3 thru 25-5.

1. Remove AN3-35A Bolts (or AN3-37A Bolts), AN960-10 Washers, and MS21044N3 Nuts attaching forward end of step to skid tube.
2. Remove bolts securing clamp to cross tube.
3. Remove step assembly.

25-5 FULL LENGTH STEP INSTALLATION

Configuration: 82709-01 (standard), 82752-01-XX (commuter)

Refer to Figure 25-6 thru 25-8.

1. Attach Clamp 78620-01 to Bracket 82723-01 with AN4-4A Bolt and AN960-416 Washer. Orient clamp with T-bolt side inboard, and bracket on forward side of cross tube. Torque bolt to 30-40 in-lbs. Slide bracket with clamp onto aft end of step. See figure 25-6. Repeat for second Bracket.

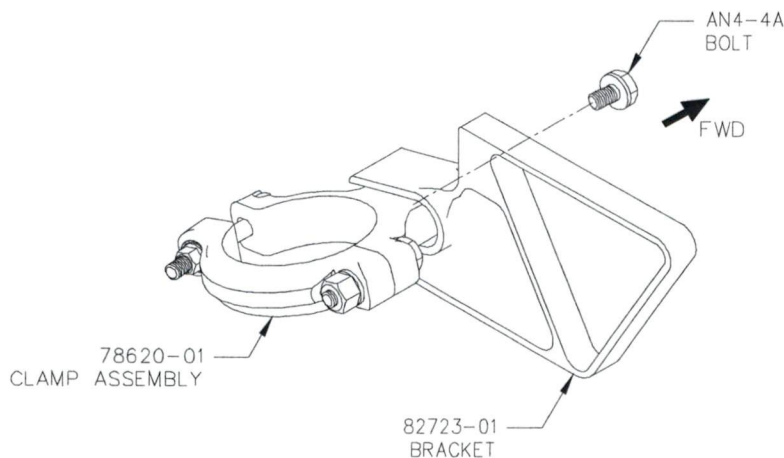


Figure 25-6 – Clamp and Bracket Assembly
(Right side shown, left side opposite)

2. Locate forward end of step assembly on forward end of skid tube. Install two (2) AN3-35A Bolt, AN960-10 Washers, and MS21044N3 Nut into existing holes in forward end of skid tube. See figure 25-7.

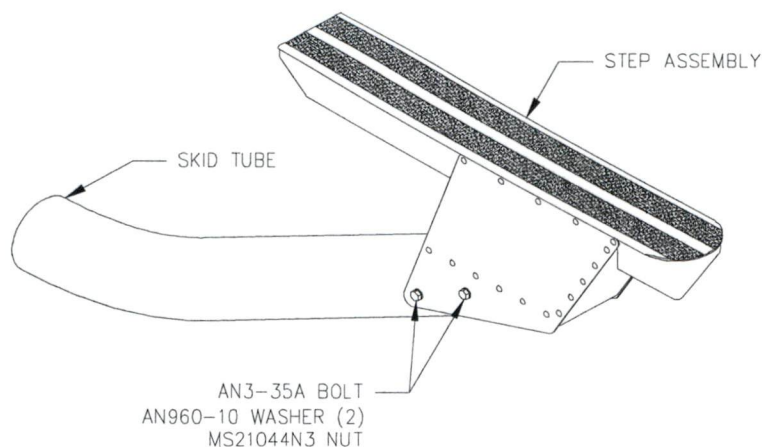


Figure 25-7 – Forward Step Attachment

3. Slide clamp and bracket (82723-01) assembly along step until clamp can be attached to forward cross-tube. Bracket can be opened with a flat head screwdriver if necessary. Repeat at aft cross tube. See Figure 25-8

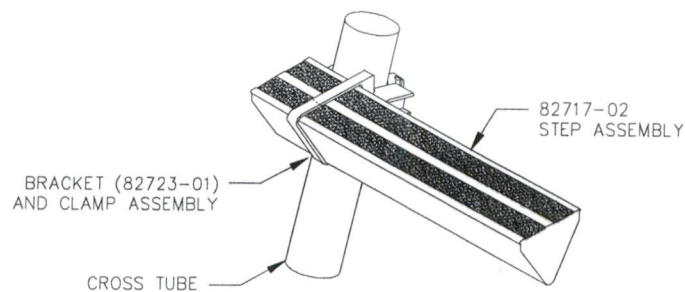


Figure 25-8 – Aft Step Attachment

4. Tighten clamp bolts to prevent the clamp from slipping on the cross tube.
5. Level the step parallel to the ground (+/- 0.25"). Nominal height is 17.5".
6. Tighten all hardware as follows:
 - AN3 Bolts: 20-25 in-lbs
 - AN4 Bolts: 50-70 in-lbs

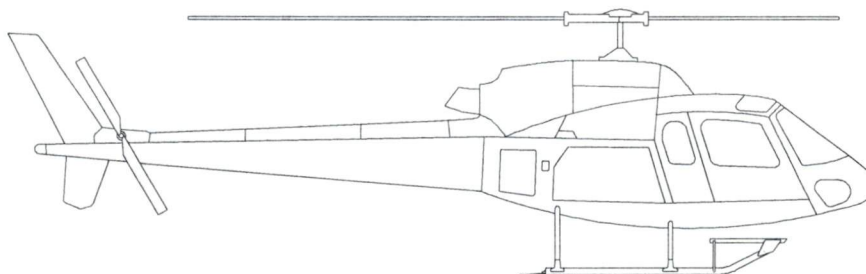
25-6 FULL LENGTH STEP REMOVAL

Configuration: 82709-01

Refer to figures 25-6 thru 25-8.

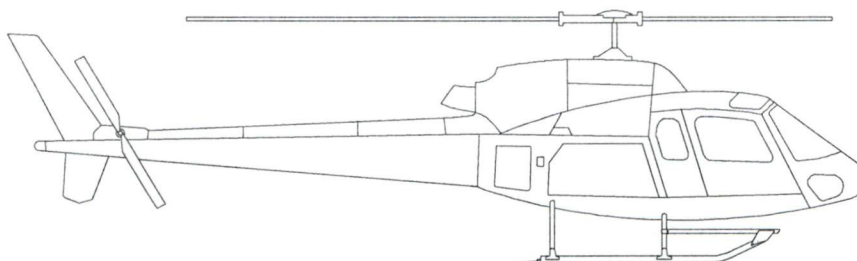
1. Remove fasteners from clamps on forward and aft cross tubes.
2. Remove AN3-35A bolts, washers and nuts attaching forward end of step to forward tip of skid tube.
3. Remove step assembly.

25-7 BILL OF MATERIALS



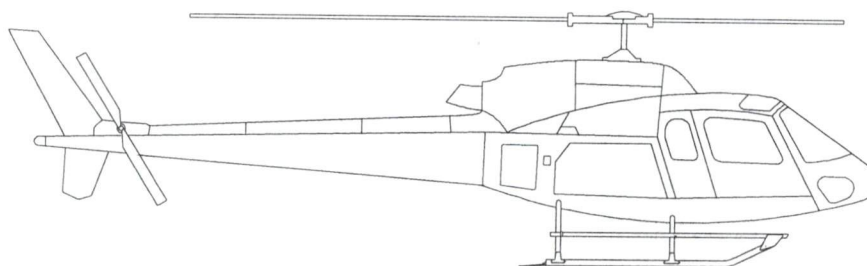
SHORT CABIN STEP INSTALLATION

Qty.	Part Number	Description
	82706-01	Short Cabin Step Installation
. 1	82715-01	Step Assembly
. 1	82733-01	Bracket
. 1	82733-02	Bushing
. 2	AN4-42A	Bolt
. 4	AN960-416	Washer
. 2	MS21044N4	Nut
. 2	AN3-35A	Bolt
. 4	AN960-10	Washer
. 2	MS21044N3	Nut



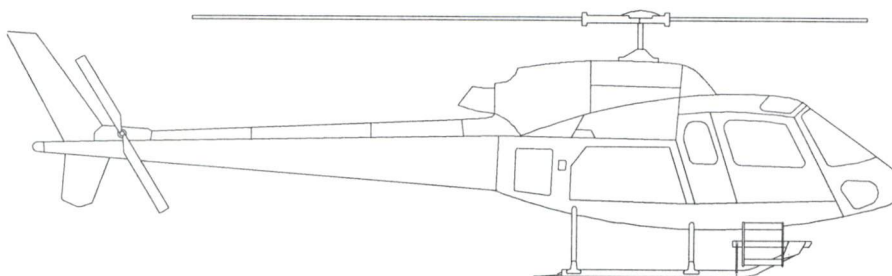
LONG CABIN STEP INSTALLATION

Qty.	Part Number	Description
	82705-01	Long Cabin Step Installation
. 1	82717-01	Step Assembly
. 1	82723-01	Bracket
. 1	78620-01	Clamp Assembly
. 1	AN4-4A	Bolt
. 1	AN4-5A	Bolt
. 2	AN960-416	Washer
. 2	AN3-35A	Bolt
. 4	AN960-10	Washer
. 2	MS21044N3	Nut



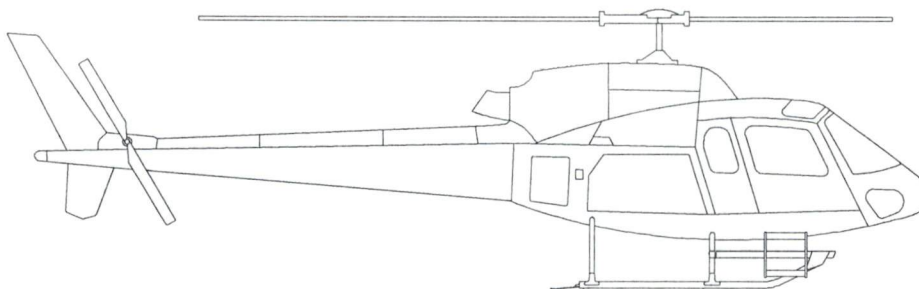
FULL LENGTH CABIN STEP INSTALLATION

Qty.	Part Number	Description
	82709-01	Full Length Cabin Step Installation
. 1	82717-02	Step Assembly
. 2	82723-01	Bracket
. 2	78620-01	Clamp Assembly
. 2	AN4-4A	Bolt
. 2	AN4-5A	Bolt
. 4	AN960-416	Washer
. 2	AN3-35A	Bolt
. 4	AN960-10	Washer
. 2	MS21044N3	Nut



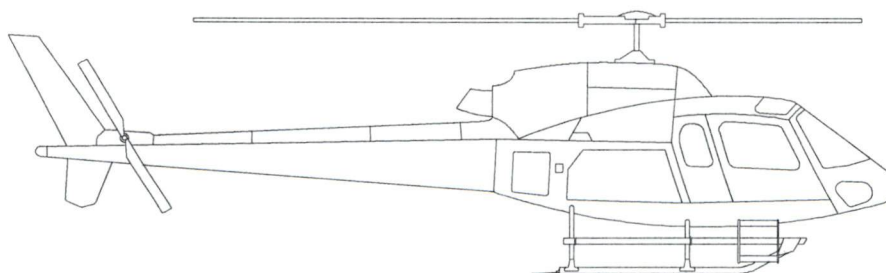
SHORT COMMUTER CABIN STEP INSTALLATION

Qty.	Part Number	Description
	82750-01-01	Short Commuter Cabin Step Installation (RH)
	82750-01-02	Short Commuter Cabin Step Installation (LH)
. 1	82718-01-01	Step Assembly (RH)
. 1	82718-01-02	Step Assembly (LH)
. 1	82733-01	Bracket
. 1	82733-02	Bushing
. 2	AN4-42A	Bolt
. 4	AN960-416	Washer
. 2	MS21044N4	Nut
. 2	AN3-35A	Bolt
. 4	AN960-10	Washer
. 2	MS21044N3	Nut



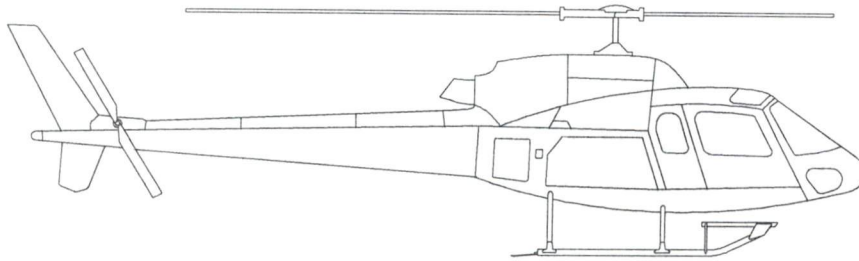
LONG COMMUTER CABIN STEP INSTALLATION

Qty.	Part Number	Description
	82751-01-01	Long Commuter Cabin Step Installation (RH)
	82751-01-02	Long Commuter Cabin Step Installation (LH)
. 1	82718-02-01	Step Assembly (RH)
. 1	82718-02-02	Step Assembly (LH)
. 1	82723-01	Bracket
. 1	78620-01	Clamp Assembly
. 1	AN4-4A	Bolt
. 1	AN4-5A	Bolt
. 2	AN960-416	Washer
. 2	AN3-35A	Bolt
. 4	AN960-10	Washer
. 2	MS21044N3	Nut



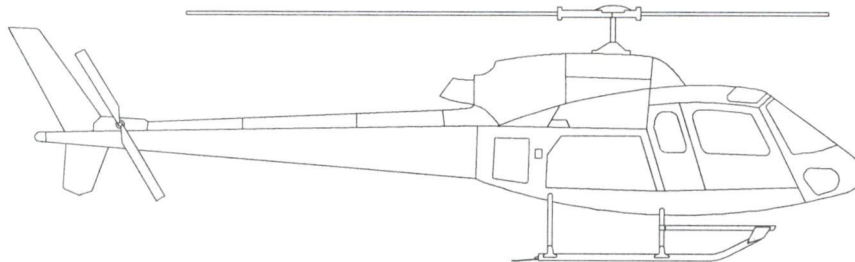
FULL LENGTH COMMUTER CABIN STEP INSTALLATION

Qty.	Part Number	Description
	82752-01-01	Full Length Commuter Cabin Step Installation (RH)
	82752-01-02	Full Length Commuter Cabin Step Installation (LH)
. 1	82718-03-01	Step Assembly (RH)
. 1	82718-03-02	Step Assembly (RH)
. 2	82724-01	Bracket
. 2	78620-01	Clamp Assembly
. 2	AN4-4A	Bolt
. 1	AN4-5A	Bolt
. 3	AN960-416	Washer
. 2	AN3-35A	Bolt
. 4	AN960-10	Washer
. 2	MS21044N3	Nut



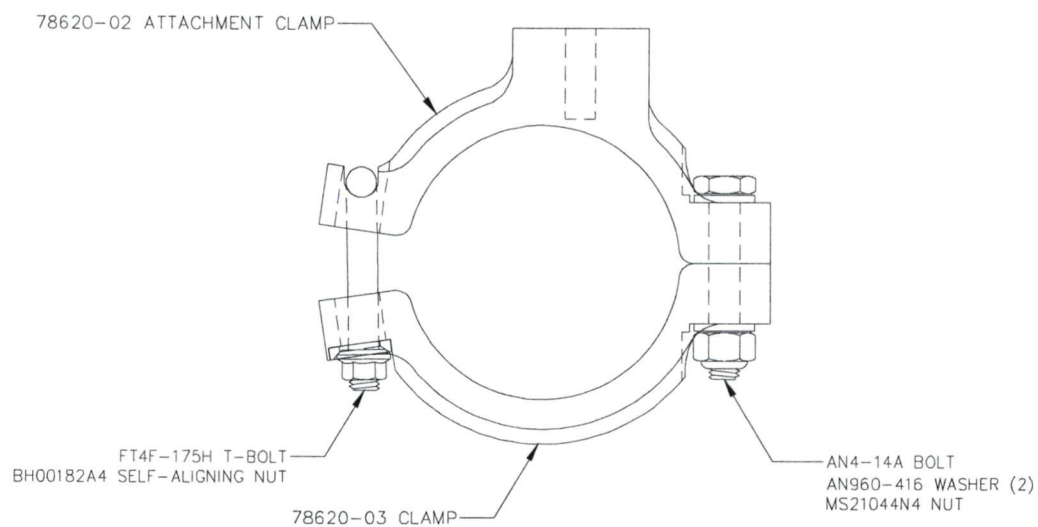
SHORT CABIN STEP INSTALLATION - DART CONVERSION

Qty.	Part Number	Description
	82770-01	Short Cabin Step Installation – DART Conversion
	82772-01	Short Cabin Step Installation – DART Conversion (old style)
. 1	82770-10	Step Assembly (82770-01)
. 1	82772-10	Step Assembly (82772-01)
. 1	82782-01	Bracket
. 1	82733-02	Bushing
. 2	AN4-42A	Bolt
. 4	AN960-416	Washer
. 2	MS21044N4	Nut
. 2	AN3-37A	Bolt
. 4	AN960-10	Washer
. 2	MS21044N3	Nut



LONG CABIN STEP INSTALLATION - DART CONVERSION

Qty.	Part Number	Description
	82771-01	Long Cabin Step Installation – DART Conversion
	82773-01	Long Cabin Step Installation – DART Conversion (Old Style)
. 1	82771-10	Step Assembly (82771-01)
. 1	82773-10	Step Assembly (82773-01)
. 1	82780-01	Bracket (82771-01)
. 1	82785-01	Bracket (82773-01)
. 1	78620-01	Clamp Assembly
. 1	AN4-4A	Bolt
. 1	AN960-416	Washer
. 2	AN3-37A	Bolt
. 4	AN960-10	Washer
. 2	MS21044N3	Nut

**CLAMP ASSEMBLY**

Qty.	Part Number	Description
	78620-01	Clamp Assembly
. 1	78620-02	Attachment Clamp (with mounting pad)
. 1	78620-03	Clamp (no mounting pad)
. 1	AN4-14A	Bolt
. 2	AN960-416	Washer
. 1	MS21044N4	Nut
. 1	FT4F-175H	T-Bolt
. 1	BH00182A4	Self Aligning Nut

25-8 WEIGHT AND BALANCE**Standard**

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
82706-01	Short Cabin Step Installation	4.2	69.1	290.2	39.4	165.5
82705-01	Long Cabin Step Installation	5.0	76.2	381.0	39.4	197.0
82709-01	Full Length Cabin Step Installation	9.8	107.9	1057.4	39.4	386.1
82750-01-XX	Short Commuter Cabin Step Installation (-01 RH / -02 LH)	12.2	70.7	862.2	41.9	511.1
82751-01-XX	Long Commuter Cabin Step Installation (-01 RH / -02 LH)	13.0	73.3	953.0	41.7	542.6
82752-01-XX	Full Length Commuter Cabin Step Installation (-01 RH / -02 LH)	17.8	91.5	1629.4	41.1	731.7
82770-01	Short Cabin Step Installation – DART Conversion	5.0	69.5	347.5	39.4	197.0
82771-01	Long Cabin Step Installation – DART Conversion	6.5	69.5	451.8	39.4	256.1
82772-01	Short Cabin Step Installation – DART Conversion, Old Style	6.8	77.1	524.3	39.4	267.9
82773-01	Long Cabin Step Installation – DART Conversion, Old Style	9.5	77.1	732.5	39.4	374.3

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	Arm Mm	moment mm-kg
82706-01	Short Cabin Step Installation	1.9	1755	3335	1000	1900
82705-01	Long Cabin Step Installation	2.3	1935	4378	1000	2260
82709-01	Full Length Cabin Step Installation	4.4	2741	12155	1000	4434
82750-01-XX	Short Commuter Cabin Step Installation (-01 RH / -02 LH)	5.5	1795	9910	1064	5874
82751-01-XX	Long Commuter Cabin Step Installation (-01 RH / -02 LH)	5.9	1862	10953	1060	6236
82752-01-XX	Full Length Commuter Cabin Step Installation (-01 RH / -02 LH)	8.1	2325	18727	1044	8410
82770-01	Short Cabin Step Installation – DART Conversion	2.3	1765	3994	1000	2262
82771-01	Long Cabin Step Installation – DART Conversion	2.9	1765	5192	1000	2941
82772-01	Short Cabin Step Installation – DART Conversion, Old Style	3.1	1958	6026	1000	3077
82773-01	Long Cabin Step Installation – DART Conversion, Old Style	4.3	1958	8418	1000	4299

Note: Lateral arms are given for right side installation. For installation on left side, lateral arms are negative.

25-9 STRUCTURAL FASTENER DATA

Refer to Standard Practices Manual for torque values not listed in this ICA.

MODS.

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
70401	Open Forward End Modification (Bell 206L/407 Fixed and McDonnell Douglas MD600N Quick Release Only)	1
70402	Lid Door Modification	1
70403	Auxiliary Latch Modification	3
70404	Open Forward End Modification (Bell 206L/407 Quick Release Only)	1
70405	Lid Step Modification	2
70406	Open Forward End Modification (Eurocopter AS350/AS355 and Bell 206B Quick Release Only)	0
70407	Open Forward End Modification (Eurocopter EC135 Quick Release Only)	0
70408	Installation, Hanger Wheel	0
70428	Assembly, Hanger Wheel	0
70438	Parts, Hanger Wheel	0
ENGINEERING DOCUMENTS		
ER704.02	Engineering Report	0
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%;"> <p>APPROVAL:</p> <p>Transport Canada</p> <p>E. BURGON</p> <p>APPROVED</p> <p>By <i>[Signature]</i></p> <p>App'l No. <u>SH08-16</u></p> <p>App'l Date <u>11 Apr 2008</u></p> <p>Issue No. <u>2</u></p> <p>Issue Date <u>22 Mar 2010</u></p> <p>THIS DCL APPROVED</p> <p><u>29 Apr 2010</u></p> </div> <div style="width: 30%;"> <p>ORIGINAL DATE:</p> <p>10 May 2006</p> <p>REVISION DATE:</p> <p>April 29, 2010</p> <p>SHEET 1 OF 1</p> </div> <div style="width: 35%;"> <p>AERO DESIGN LTD.</p> <p>2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7</p> <p>Ph. (403) 250-8027</p> <p>Fax. (403) 250-8333</p> <p>Cargo Basket Modifications</p> <p>Rev.</p> </div> </div>		
DCL704		6

United States of America
Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

IMPORT

Number SR02680NY

This certificate issued to Aero Design Ltd.
2013 - 39th Avenue NE
Calgary, Alberta, Canada
T2E 6R7

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part * of the * Regulations.*

*Original Product - - Type Certificate Number: **

*See attached FAA Approved Model List (AML) No. SR02680NY for the list of approved aircraft models and applicable airworthiness regulations.

*Make: **

*Model: **

Description of Type Design Change:

The installation of External Attachment Provisions and Cargo Basket to be done in accordance with AERO Design Ltd. Document Control List as listed on AML SR02680NY or later Transport Canada approved revision.

Limitations and Conditions:

1. Operation must be in accordance with Aircraft Flight Manual Supplement, FMS 764.91 Revision 3 dated November 3, 2011, Transport Canada approved November 23, 2011, or later Transport Canada approved revision.
2. Instructions for Continued Airworthiness described in AERO Design Ltd. Instructions for Continued Airworthiness ICA 764.90, Revision 5 dated August 2, 2012, Transport Canada accepted August 3, 2012, or later Transport Canada accepted revisions are required for this installation.
3. The Installer must determine whether this design change is compatible with previously approved modifications.
4. If the holder agrees to permit another person to use the certificate to alter a product, the holder must give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: September 16, 2008

Date reissued:

Date of issuance: February 25, 2009

Date amended: August 6, 2012



By direction of the Administrator

[Signature]
(Signature)

for Raymond Reinhardt
Acting Manager
New York Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

FAA APPROVED MODEL LIST (AML) NO. SR02680NY
AERO DESIGN LTD.
FOR
INSTALLATION OF EXTERNAL ATTACHMENT PROVISIONS AND CARGO BASKET

Original Issue Date: February 25, 2009

ITEM	PART	REGULATION	MAKE	MODEL	TCDS	CONFIGURATION			REQUIRED DOCUMENTATION		AML AMEND- MENT DATE
						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
1	27	Federal Aviation	Eurocopter France	AS 350 B, B1, B2, B3, BA, D, D1	H9EU	A	External Attachment Provisions Only: External Attachment Provisions installed in accordance with DCL786-1 may remain installed if the basket installation is removed.	Aero Design Ltd. Document Control List DCL786-1, Revision 3, dated June 16, 2010 or later Transport Canada approved revision.	Aero Design Ltd. ICA 764.90, Rev. 4, dated October 24, 2011, or later Transport Canada accepted revision.	Aero Design Ltd. FMS 764.91, Rev. 3, dated November 3, 2011, Transport Canada approved November 23, 2011, or later Transport Canada approved revision.	August 6, 2012
2				AS 355 E, F, F1, F2, N, NP	H11EU						
1, continued				AS 350 B, B1, B2, B3, BA, D, D1	H9EU	B	External Cargo Basket (Short Basket): Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration B, External Cargo Basket Installation.	Aero Design Ltd. Document Control List DCL776-1, Revision 3, dated June 16, 2010 or later Transport Canada approved revision.			August 6, 2012
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA APPROVED MODEL LIST (AML) NO. SR02680NY
AERO DESIGN LTD.
FOR

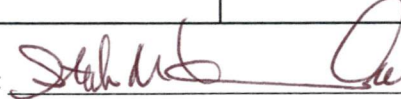
INSTALLATION OF EXTERNAL ATTACHMENT PROVISIONS AND CARGO BASKET

ITEM	PART	REGULATION	MAKE	MODEL	TCDS	CONFIGURATION			REQUIRED DOCUMENTATION		AML AMEND- MENT DATE
						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
1, continued	27	Federal Aviation	Eurocopter France	AS 350 B, B1, B2, B3, BA, D, D1	H9EU	D	External Cargo Basket (Medium Basket): Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration D, External Cargo Basket Installation.	Aero Design Ltd. Document Control List DCL764-1, Revision 3, dated June 16, 2010 or later Transport Canada approved revision.	Aero Design Ltd. ICA 764.90, Rev. 5, dated August 2, 2012, or later Transport Canada accepted revision.	Aero Design Ltd. FMS 764.91, Rev. 3, dated November 3, 2011, Transport Canada approved November 23, 2011, or later Transport Canada approved revision.	August 6, 2012
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						
1, continued	27			AS 350 B, B1, B2, B3, BA, D, D1	H9EU	E	External Cargo Basket (Long Basket): Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration E, External Cargo Basket Installation.	Aero Design Ltd. Document Control List DCL784-1, Revision 3, dated June 16, 2010 or later Transport Canada approved revision.			August 6, 2012
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA APPROVED MODEL LIST (AML) NO. SR02680NY
AERO DESIGN LTD.
FOR

INSTALLATION OF EXTERNAL ATTACHMENT PROVISIONS AND CARGO BASKET

ITEM	PART	REGULATION	MAKE	MODEL	TCDS	CONFIGURATION			REQUIRED DOCUMENTATION		AML AMEND- MENT DATE
						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
1, continued		Federal Aviation	Eurocopter France	AS 350 B, B1, B2, B3, BA, D, D1	H9EU	F	External Cargo Basket (Long Basket- Alternate): Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration F, External Cargo Basket Installation.	Aero Design Ltd. Document Control List DCL940-1, Revision 0, dated November 3, 2011 or later Transport Canada approved revision.	Aero Design Ltd. ICA 764.90, Rev. 5, dated August 2, 2012, or later Transport Canada accepted revision.	Aero Design Ltd. FMS 764.91, Rev. 3, dated November 3, 2011, Transport Canada approved November 23, 2011, or later Transport Canada approved revision.	August 6, 2012
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						
1, continued	27			AS 350 B, B1, B2, B3, BA, D, D1	H9EU	Cargo Basket Modification	Modifications to the Cargo Basket configurations are eligible in accordance with Document Control List.	Aero Design Ltd. Document Control List DCL704, Revision 6, dated April 29, 2010 or later Transport Canada approved revision.			August 6, 2012
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA Approved: 
for Raymond Reinhardt
Acting Manager,
New York Aircraft Certification Office
Amended Date: August 6, 2012

MD600N
CAN STC



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Aero Design Ltd.
2013 39th Avenue North East
Calgary, Alberta
Canada T2E 6R7

Number: SH09-1

Issue No.: 1

Approval Date: January 27, 2009

Issue Date: January 27, 2009

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

MD HELICOPTERS, INC. 600N

Canadian Type Certificate or Equivalent:

H-95

Description of Type Design Change:

Installation of Quick Release Mounting Provisions / Cargo Basket / Step on the right or left side of the helicopter.

**Installation/Operating Data,
Required Equipment and Limitations:**

Configuration A - Quick Release Mounting Provisions:

Installation of Quick Release Mounting Provisions to be completed in accordance with Transport Canada Civil Aviation (TCCA) approved, AERO Design Ltd. Document Control List, DCL828-1, Revision 0, dated 3 December 2008, or later approved revision.

Quick Release Mounting Provisions may remain installed if any other configuration is removed.

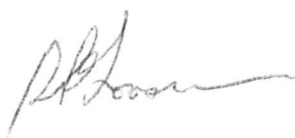
Configuration B - Quick Release Cargo Basket Installation:

Installation of Configuration A - Quick Release Mounting Provisions is a mandatory prerequisite for installation of Configuration B. Installation of Quick Release Cargo Basket to be completed in accordance with TCCA approved, AERO Design Ltd. Document Control List, DCL 828-1, Revision 0, dated 3 December 2008, or later approved revision.

...See Continuation Sheet

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.




R.A. Goossens
For Minister of Transport

MCDONNELL DOUGLAS MD600N

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT
for the
INSTALLATION of the AERO DESIGN
QUICK RELEASE CARGO BASKET
AND/OR QUICK RELEASE STEP

Supplemental Type Certificate No. SH09-1

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the McDonnell Douglas MD600N when fitted with the Quick Release Cargo Basket or Step Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



	Transport Canada	Transports Canada
AIRCRAFT CERTIFICATION DIVISION		
APPROVED		
By		
Appr'l No.	SH09-1	
Appr'l Date	09-01-27	
Issue No.	1	
Issue Date	09-01-27	
YY-MM-DD		

Table of Contents

I	Limitations	3
II	Normal Procedures	3
III	Emergency Procedures	3
IV	Performance	4
V	Weight and Balance	5
VI	Installation / removal instructions	7

Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By
0	27 Nov 2008	Original Issue		

I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Quick Release Cargo Basket is 200 lb. (90.5 kg).
2. Only one basket may be installed on the helicopter, on the right or left side.
3. Flight operations limited to VFR conditions with AERO Design Ltd. Quick Release Cargo Basket installed.
4. Maximum V_{NE} is 135 KIAS, or as reduced based on rotorcraft V_{NE} placards. If the V_{NE} in the basic rotorcraft flight manual or approved supplement is more restrictive, the lower V_{NE} shall apply.
5. Quick Release Step may be installed on the right or left side. Step may be installed on the inboard side of the beams (stowed position) when the basket is installed.
6. Flight operations using the cargo hook are prohibited while there is cargo loaded in the Cargo Basket.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - c) Ensure the basket is locked in position on the beams. Pull up on the forward and aft end of the basket to check.
 - d) Ensure the step is locked in position on the beams. Pull up on the forward and aft end of the step to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

IV PERFORMANCE

1. Cruise performance and range will be reduced by approximately 8 percent with the Cargo Basket installed.
2. Climb performance will be reduced by up to 150 fpm with the Cargo Basket installed.

V WEIGHT AND BALANCE

1. The following weight and balance is for the Quick Release Cargo Basket configuration, installed in accordance with drawing 82801.

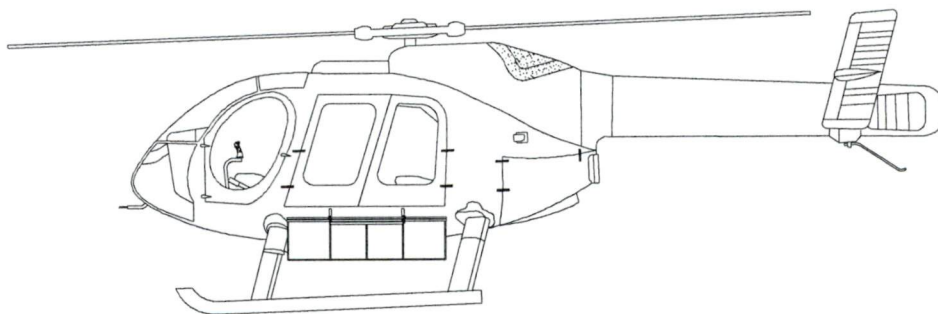


Figure 1 – Quick Release Cargo Basket Configuration

Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral ³	
		Arm	Moment	Arm	Moment
Basket Only ¹	45.0 lb	82.1 in	3 694.5 in*lb	- 39.8 in	- 1 788.8 in*lb
	20.4 kg	2085 mm	42 534 mm*kg	- 1011 mm	- 20 624 mm*kg
Cargo ² (MAX)	200 lb	82.1 in	16 420 in*lb	- 39.8 in	- 7 960 in*lb
	90.5 kg	2085 mm	411 991 mm*kg	- 1011 mm	- 91 496 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

³ Lateral arm is positive when installed on the right.

2. The following weight and balance is for the quick release step configuration, installed in accordance with drawing 82901.

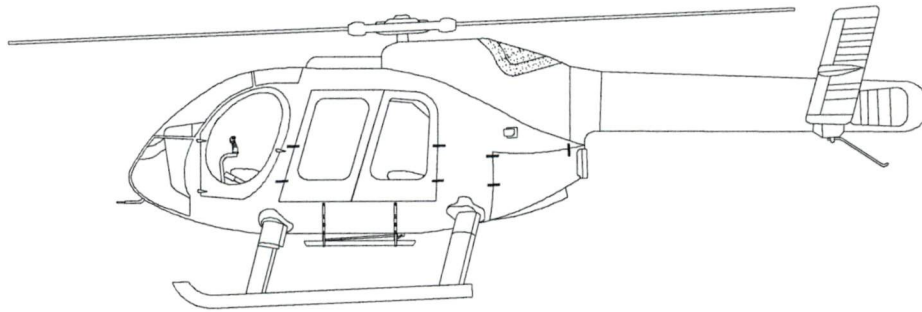


Figure 2 – Quick Release Step Configuration

Quick Release Step Configuration – Outboard Position

Item	Weight	Longitudinal		Lateral ²	
		Arm	Moment	Arm	Moment
Step Only ¹	5.0 lb	82.1 in	410.5 in*lb	- 29.5 in	- 147.5 in*lb
	2.3 kg	2085 mm	4 796 mm*kg	- 749 mm	- 1 723 mm*kg

Quick Release Step Configuration – Inboard Position (Stowed)

Item	Weight	Longitudinal		Lateral ²	
		Arm	Moment	Arm	Moment
Step Only ¹	5.0 lb	82.1 in	410.5 in*lb	- 23.7 in	- 118.5 in*lb
	2.3 kg	2085 mm	4 796 mm*kg	- 602 mm	- 1 385 mm*kg

¹ Weight and balance is for Step only. Mounting beams are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Lateral arm is positive when installed on the right.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The Quick Release Mounting Beams are installed in accordance with drawing 82802. The Quick Release Basket is installed in accordance with drawing 82801. The Quick Release Step is installed in accordance with drawing 82901. Removal of the basket or step leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket or step and which weight and balance amendment is in effect is required.

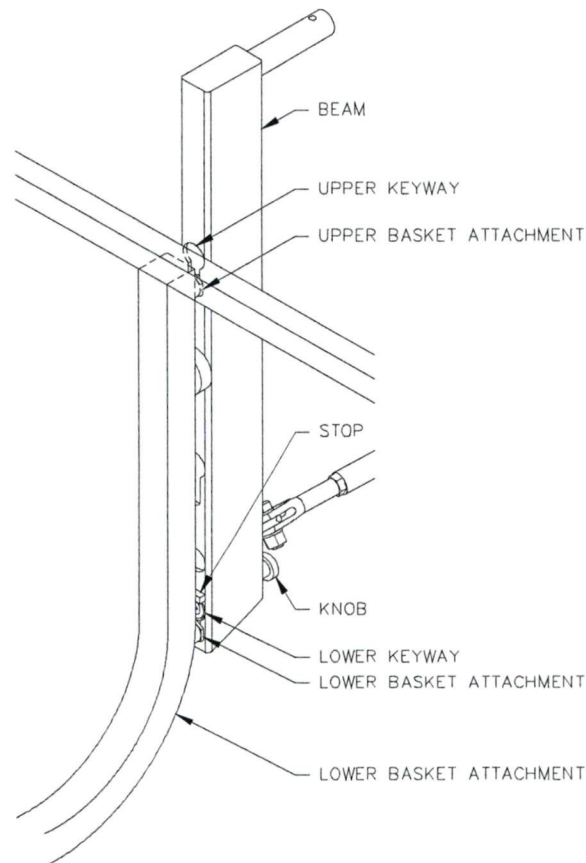


Figure 3 – Basket Attachment

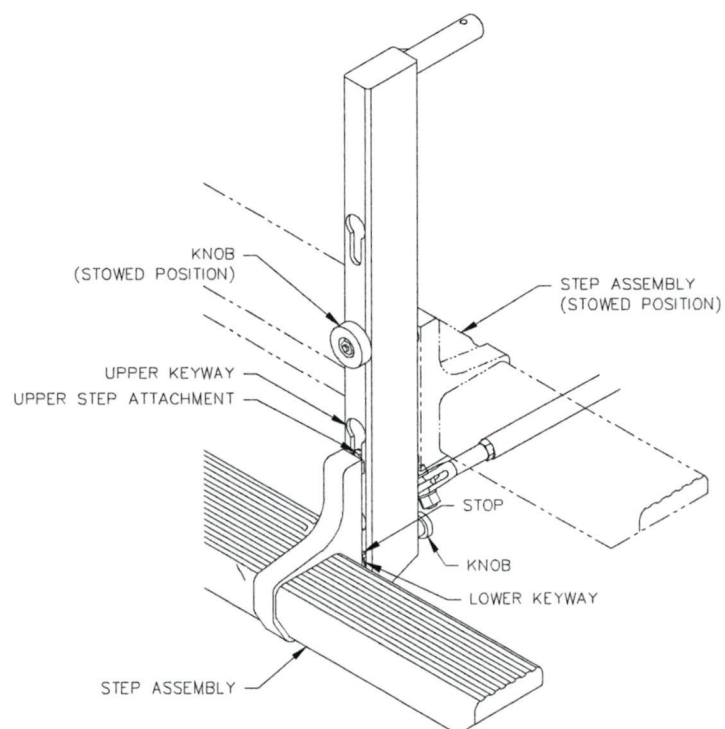


Figure 4 – Step Attachment

1. Installation - Refer to Figure 3/4.

1. Set upper attachment into upper keyway on forward and aft beams.
 2. At forward end, lift basket or step until lower attachment fitting hits stop over keyway. Push fitting into keyway and slide down until locked. Repeat for aft end.
2. Removal - Refer to Figure 3/4.
1. Pull knob at bottom end of forward beam and lift basket or step until lower attachment fitting is free of keyway. Keep upper attachment in keyway in beam. Repeat for aft end.
 2. Lift basket or step until upper attachments are out of keyways in beams and remove from helicopter.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Engine & Propeller Directorate

New York Aircraft Certification Office
1600 Stewart Avenue
4th Floor, Suite 410
Westbury, NY 11590
(516) 228-7300, Fax (516) 794-5531

SEP 09 2009

Mr. Jack Staal
Engineering Technologist – Aircraft Certification
Transport Canada Civil Aviation (TCCA)
1100-9700 Jasper Avenue
RAED
Edmonton, Alberta T5J 4E6
Canada

Subject: Issuance of Supplemental Type Certificate (STC) SR02728NY

Dear Mr. Staal:

In recognition of the TCCA Supplemental Type Certificate SH09-1 Issue No. 1, dated January 27, 2009 for the installation of Quick Release Mounting Provisions/Cargo Basket/Step on the right or left side of MDHI 600N model aircraft, and the existing Bilateral Aviation Safety Agreement (BASA) Implementation Procedures for Airworthiness between the United States and Canada, we are pleased to accept the TCCA Statement of Compliance that compliance has been demonstrated with the FAA Type Certificate H3WE and therefore, we have issued FAA Supplemental Type Certificate (STC) SR02728NY, dated August 26, 2009 to Aero Design Ltd..

All mandatory inspections/modifications and related service bulletins issued in the future against this STC model must be forwarded to the following:

Federal Aviation Administration
Airworthiness Programs Branch
AIR-140
PO Box 26460
Oklahoma City, OK 73125
USA

Telephone: 405-954-4103
Facsimile: 405-954-4104

In accordance with the US/Canada bilateral relationship using TCCA compliance to the maximum extent, this STC includes reference to documents that include the words "or later TCCA approved/ accepted revisions". It is expected that as State of Design responsible for the STC, TCCA will coordinate any major/significant changes, as deemed appropriate, with the FAA prior to TCCA approval/acceptance.

Please forward the enclosed STC and a copy of "Information Concerning Your Responsibility as a Holder of A Supplemental Type Certificate, Issued To A Canadian Applicant" to Aero Design Ltd. A copy of the STC and required documents should accompany each installation. Also, your attention is directed to the limitations and conditions specified in the STC.

If you have any questions or require additional information, please contact Mr. Leung Lee by telephone at 1-516-228-7309 or by facsimile at 1-516-228-5531.

Sincerely,



 Anthony Socias
Manager, New York Aircraft Certification Office

Enclosures

United States of America
Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

IMPORT

Number SR02728NY

This certificate issued to

Aero Design Ltd.
2013 - 39th Avenue North East
Calgary, Alberta, T2E 6R7
Canada

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 27 of the Federal Aviation Regulations.

Original Product -- Type Certificate Number : H3WE

Make : MDHI

Model : 600N

Description of Type Design Change:

Configuration A - Quick Release Mounting Provisions:

Installation of Quick Release Mounting Provisions on the right or left side in accordance with AERO Design Ltd. Installation Document 82802 Revision 0, as listed in Document Control List DCL828-1 Revision 0, dated December 3, 2008, TCCA approved January 27, 2009, or later TCCA approved revisions.

(See Continuation Sheet 2 of 2)

Limitations and Conditions:

1. Installation of Configuration A is a prerequisite for the installation of Configuration B.
2. Installation of Configuration A is a prerequisite for the installation of Configuration C.
3. Configuration A may remain installed on aircraft when Configuration B or C is removed.
4. Eligibility limitations of cargo basket modifications are noted on the drawings listed in AERO Design Ltd. Document Control List DCL704 Revision 4, dated December 22, 2008.

(See Continuation Sheet 2 of 2)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application : April 1, 2009

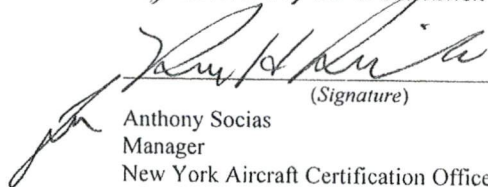
Date reissued :

Date of issuance : August 26, 2009

Date amended :



By direction of the Administrator


(Signature)
Anthony Socias
Manager
New York Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

United States of America
Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

(Continuation Sheet)

Number SR02728NY

Description of Type Design Change: (Continued)

Configuration B – Quick Release Cargo Basket Installation:

Installation of Quick Release Cargo Basket on the right or left side in accordance with AERO Design Ltd. Installation Document 82801 Revision 0, as listed in Document Control List DCL828-1 Revision 0, dated December 3, 2008, TCCA approved January 27, 2009, or later TCCA approved revisions.

Configuration C – Quick Release Step Installation:

Installation of Quick Release Step on the right or left side in accordance with AERO Design Ltd. Installation Document 82901 Revision 0, as listed in Document Control List DCL829-1 Revision 0, dated December 3, 2008, TCCA approved January 27, 2009, or later TCCA approved revisions.

Cargo Basket Modifications:

Modifications to the cargo basket configuration are eligible in accordance with AERO Design Ltd. Document Control List DCL704 Revision 4, dated December 22, 2008, TCCA approved January 27, 2009, or later TCCA approved revisions.

Limitations and Conditions: (Continued)

5. AERO Design Ltd. Rotorcraft Flight Manual Supplement FMS828.91, Revision 0, dated November 27, 2008, TCCA approved January 27, 2009, or later TCCA approved revisions is required to all installation configurations.
6. AERO Design Ltd. Instructions for Continued Airworthiness ICA 828.90 Revision 0, dated November 27, 2008, TCCA accepted January 27, 2009, or later TCCA accepted revisions is required with the installation of the quick release cargo basket.
7. AERO Design Ltd. Instructions for Continued Airworthiness ICA 829.90 Revision 0, dated November 27, 2008, TCCA accepted January 27, 2009, or later TCCA accepted revisions is required with the installation of the quick release step.
8. The installer must determine whether this design change is compatible with previously approved modifications.
9. If the holder agrees to permit another person to use this certificate to alter a product, the holder must give the other person written evidence of that permission.

.....END.....

United States of America
Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

IMPORT

Number SR02728NY

This certificate issued to Aero Design Ltd.
2013 - 39th Avenue North East
Calgary, Alberta, T2E 6R7
Canada

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 27 of the Federal Aviation Regulations.

Original Product -- Type Certificate Number : H3WE

Make : MDHI

Model : 600N

Description of Type Design Change:

Configuration A - Quick Release Mounting Provisions:

Installation of Quick Release Mounting Provisions on the right or left side in accordance with AERO Design Ltd. Installation Document 82802 Revision 0, as listed in Document Control List DCL828-1 Revision 0, dated December 3, 2008, TCCA approved January 27, 2009, or later TCCA approved revisions.

(See Continuation Sheet 2 of 2)

Limitations and Conditions:

1. Installation of Configuration A is a prerequisite for the installation of Configuration B.
2. Installation of Configuration A is a prerequisite for the installation of Configuration C.
3. Configuration A may remain installed on aircraft when Configuration B or C is removed.
4. Eligibility limitations of cargo basket modifications are noted on the drawings listed in AERO Design Ltd. Document Control List DCL704 Revision 4, dated December 22, 2008.

(See Continuation Sheet 2 of 2)

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application : April 1, 2009

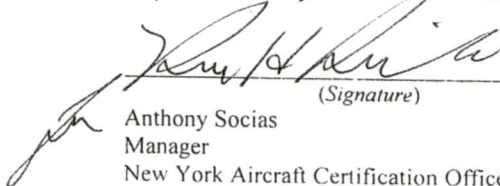
Date reissued :

Date of issuance : August 26, 2009

Date amended :




By direction of the Administrator


(Signature)
Anthony Socias
Manager
New York Aircraft Certification Office


(Title)

BASKET



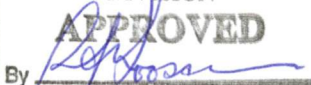
DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
82801	Quick Release Cargo Basket Installation	0
82802	Quick Release Mounting Provisions Installation	0
ICA828.90	Instructions for Continued Airworthiness	0
FMS828.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL828-11	Document Control List for Quick Release Cargo Basket	0
DCL828-12	Document Control List for Mounting Provisions	0
ENGINEERING DOCUMENTS		
APPROVAL:		
 <p>Transport Canada / Transports Canada</p> <p>AIRCRAFT CERTIFICATION DIVISION</p> <p>APPROVED</p> <p>By: <i>[Signature]</i></p> <p>App'l No. SH09-1</p> <p>App'l Date 09-01-27</p> <p>Issue No. 1</p> <p>Issue Date 09-01-27</p> <p>YY-MM-DD</p>	<p>ORIGINAL DATE:</p> <p>3 December, 2008</p> <p>REVISION DATE:</p>	<p>AERO DESIGN LTD.</p> <p>2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7</p> <p>Ph. (403) 250-8027</p> <p>Fax. (403) 250-8333</p>
	<p>SHEET 1 OF 1</p>	<p>McDonnell Douglas MD600N</p> <p>Quick Release Cargo Basket</p> <p>Installation</p>
	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="font-size: 2em; font-weight: bold;">DCL828-1</div> <div style="text-align: right;"> <p>Rev.</p> <div style="font-size: 3em; font-weight: bold;">0</div> </div> </div>	


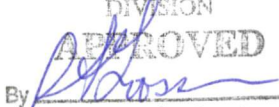
DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
82810	Cargo Basket Assembly	0
82811	Basket Body Assembly	0
82812	Basket Lid Assembly	0
82821	Basket Components - Attachment Hoop	0
82827	Basket Components - Placard	0
49210	Basket Components - Hoops	1
49215	Basket Components - Spacer	0
49216	Basket Components - Spacer	0
36255	Handle Assembly	1
36261	Handle Bar Assembly	6
36262	Handle Bracket Assembly	1
36271	Handle Lever	1
36272	Basket Bracket	1
36273	Lid Bracket	1
36274	Bushing	1
36275	Bushing	2
36277	Handle Bar	0
36278	Spring	1
36280, Sheet 1	Brace	2
36280, Sheet 2	Brace	2
ENGINEERING DOCUMENTS		
ER828.01	Engineering Report	0
APPROVAL:		
 Transport Canada Transports Canada AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>[Signature]</u> Appr'l No. <u>SH09-1</u> Appr'l Date <u>09-01-27</u> Issue No. <u>1</u> Issue Date <u>09-01-27</u> <small>YY-MM-DD</small>		ORIGINAL DATE: 3 December, 2008 REVISION DATE: AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
SHEET 1 OF 1		McDonnell Douglas MD600N Quick Release Cargo Basket Assembly
DCL828-11		Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
82815	Down Tube Assembly	0
82830	Cargo Hook Pad	0
82831	Strut Assemblies	0
82832	Down Tube Fabrication	0
ENGINEERING DOCUMENTS		
ER828.01	Engineering Report	0
<div> <div> APPROVAL:  Transport Canada </div> <div>  Transport Canada </div> </div> <div> AIRCRAFT CERTIFICATION DIVISION APPROVED By  Appr'l No. <u>SH09-1</u> Appr'l Date <u>09-01-27</u> Issue No. <u>1</u> Issue Date <u>09-01-27</u> YY-MM-DD </div>		
ORIGINAL DATE: 3 December, 2008 REVISION DATE:		AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
SHEET 1 OF 1		McDonnell Douglas MD600N Quick Release Mounting Beams
DCL828-12		Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION	
FABRICATION DOCUMENTS			
70401	Open Forward End Modification (Bell 206L/407 Fixed and McDonnell Douglas MD600N Quick Release Only)	1	
70402	Lid Door Modification	1	
70403	Auxiliary Latch Modification	3	
70404	Open Forward End Modification (Bell 206L/407 Quick Release Only)	1	
70405	Lid Step Modification	2	
70406	Open Forward End Modification (Eurocopter AS350/AS355 and Bell 206B Quick Release Only)	1	
70407	Open Forward End Modification (Eurocopter EC135 Quick Release Only)	0	
ENGINEERING DOCUMENTS			
ER704.02	Engineering Report	0	
APPROVAL:			
 <div style="display: inline-block; vertical-align: top; margin-left: 10px;"> Transport Canada </div> <div style="display: inline-block; vertical-align: top; margin-left: 10px;"> Transports Canada </div> <div style="text-align: center; margin-top: 10px;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By  Appr'l No. <u>SH09-1</u> Appr'l Date <u>09-01-27</u> Issue No. <u>1</u> Issue Date <u>09-01-27</u> <small>YY - MM - DD</small> </div>	ORIGINAL DATE: 10 May 2006 REVISION DATE: 22 December 2008	AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333	
	SHEET 1 OF 1	Cargo Basket Modifications	
	DCL704		Rev. 4

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 828.90

QUICK RELEASE CARGO BASKET

Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Quick Release Cargo Basket assembled in accordance with AERO Design Ltd. Document Control List DCL828-11, Revision 0, and DCL828-12, Revision 0, or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 0
Date: 27 November, 2008

AERO Design Ltd.
Engineering Consultants

2013 – 39th Avenue N.E., Calgary, Alberta T2E 6R7
Phone: (403) 250-8027
Fax: (403) 250-8333
E-Mail: infor@aerodesign.ca

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RECORD OF REVISIONS

Revision Number	Issue Date	Date Inserted	By
0	27 November 2008		Original Issue

LIST OF EFFECTIVE PAGES

List of Revisions

Revision 0 (Original Issue) 27 November, 2008

List of Effective Pages

<u>Description</u>	<u>Pages</u>	<u>Revision No.</u>
Cover	1	0
Revision Record/List of Effective Pages	2	0
Table of Contents	3	0
00-00-00	4-5	0
04-00-00	6	0
05-00-00	7-9	0
11-00-00	10	0
25-50-00	11-14	0

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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for rotorcraft embodying the Quick Release Cargo Basket as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Quick Release Cargo Basket. Requests for a copy may be made in writing to:

AERO Design Ltd.
2013 39th Avenue N.E.
Calgary, Alberta
T2E 6R7
Fax: 403-250-8333
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

0-5 GENERAL DESCRIPTION

The cargo basket installation is a metal mesh basket installed to the side of the helicopter on beams attached to the jack points under the main cabin door. The quick release mechanism allows for the installation and removal of the basket without tools, allowing a pilot operating in the field without maintenance support to install or remove the basket, leaving the mounting beams in place.

The basket itself is 65" long, 22.5" wide, and 17" high. It is made of a steel welded tubing structure, and lined with expanded steel mesh. The basket has a hinged lid with a self-locking handle.

The beams consist of a steel tube with various keyways for mounting the basket and other equipment such as steps. The quick release mechanism is built into the steel tube. Struts attach the bottom of the beam to a mounting point installed between the cargo hook and fuselage.

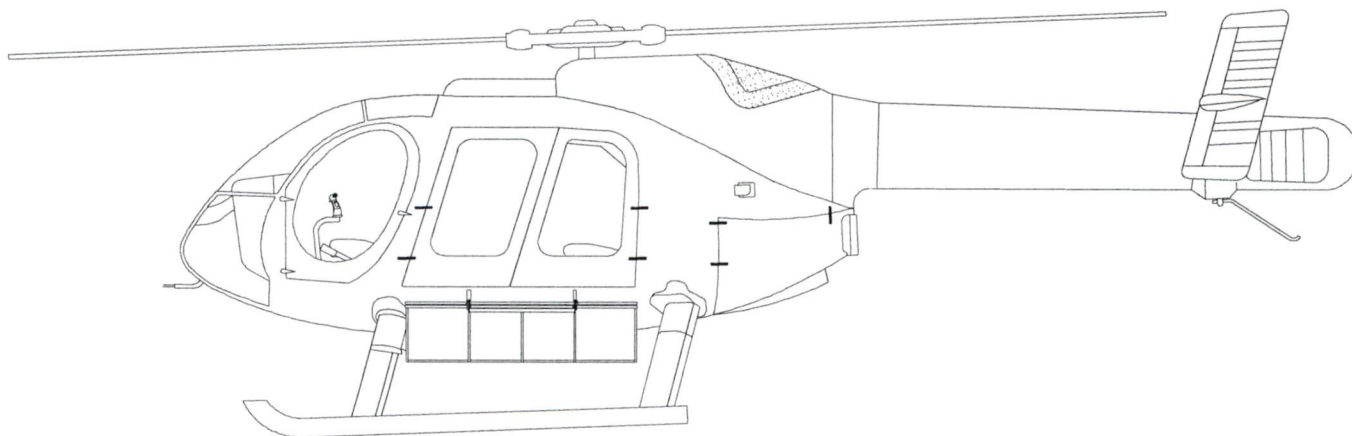


Figure 1 – Cargo Basket Installation

CHAPTER 4 - AIRWORTHINESS LIMITATIONS

Transport Canada

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

FAA

The Airworthiness Limitations section is FAA approved and specifies maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

No additional airworthiness limitations have been imposed due the installation of the Quick Release Cargo Basket.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Quick Release Cargo Basket.

Daily Inspection

1. Inspection Area: Basket
 - a) Inspect the basket attachment to the beams for condition and security. Ensure quick release mechanism is completely extended, flush with the outboard surface of the beam.
 - b) Inspect latching of the lid for correct operation. If basket is bent inward the lid will close but may not latch.

300 Hour or Annual Inspection

1. Inspection Area: Basket
 - a) Visually inspect tube-to-tube welds and mesh-to-tube welds for cracks, corrosion or other damage.
 - b) Visually inspect basket mesh for damage.
2. Inspection Area: Beams

With the basket removed:

 - a) Visually inspect beams attaching basket to the helicopter for cracks, corrosion or other damage.
 - b) Visually inspect the struts attaching the beam to the attachment at the cargo hook for cracks, corrosion or other damage.
 - c) Visually inspect lugs attaching the basket to the beams for security and damage.
 - d) Visually inspect all hardware attaching beams to helicopter hard points for condition and security.

Special Inspections

Following a hard landing inspect the Quick Release Cargo Basket installation in accordance with the 300 hour or annual inspection listed above.

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Basket

- a) Repair Basket in accordance with AC43.13-1B, Chapter 4, Section 5, Welding, as required.
- b) Basket is fabricated from the following materials:
 - Lid and Rim: $\frac{3}{4}$ " square steel tube
 - Frames: $\frac{1}{2}$ " square steel tube
 - Mesh: $\frac{3}{4}$ " 16 ga. (0.040") expanded steel mesh
- c) Touch up with polyurethane paint as required following repairs.

2. Steel Beams

DO NOT REPAIR DAMAGE TO BEAMS IF BEYOND THE LIMITS BELOW.

- a) Nicks and/or gouges on the outboard face up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour.
- b) Nicks and/or gouges on the side and inboard faces up to 0.060" deep and 0.125" wide may be dressed out to a smooth contour.
- c) Critical keyway dimensions are shown in Figure 3. Attempt to insert 27/64 drill shank into bottom end of keyway. If drill can be inserted, slot is worn beyond limit.

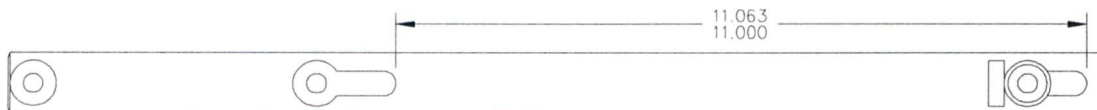


Figure 3 – Keyway dimensions

- d) Touch up with polyurethane paint as required following repairs.

3. Struts

DO NOT REPAIR DAMAGE TO STRUTS IF BEYOND THE LIMITS BELOW.

- a) Surface corrosion not exceeding 0.5 square inches and 0.010" deep may be dressed out to a smooth contour.
- b) Dents or bends are not acceptable in any area of the strut.
- c) Touch up with polyurethane paint as required following repairs.

5-3 PROTECTIVE TREATMENT INFORMATION

1. Beams / Struts

The beams and struts are supplied powder coated white. If the powder coat or paint is damaged, touch up with white polyurethane paint.

2. Cargo Basket

The cargo basket is supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint.

CHAPTER 11 – MARKINGS AND PLACARDS

The following markings and placards are used with the Quick Release Cargo Basket Installation in the locations noted:

- a) Located on basket lid:



CHAPTER 25 – EQUIPMENT AND FURNISHINGS

SECTION 50 – CARGO COMPARTMENTS

The Provisions Installation may be installed on the left or right side. The Quick Release Cargo Basket Installation may be applied to the left or right side of the helicopter, depending on the provisions installation.

25-1 PROVISIONS INSTALLATION

Refer to Figure 4.

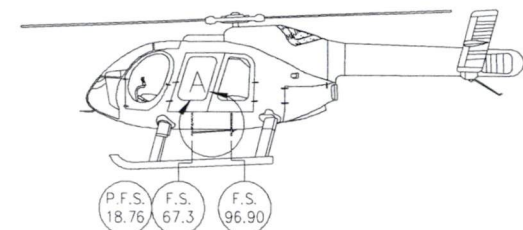
1. Remove step or jack fitting from jack points at FS 67.3 (PFS 18.76) and FS 96.9 if installed.
2. Insert pin at top of 82815-01 Beam Assembly into jack fitting. Secure beam with existing ball lock pin LW1325-1 through floor. Repeat at other jack fitting.
3. Remove cargo hook by removing four bolts into bottom of fuselage if installed.
4. Install 82830-01 Cargo Hook Pad on bottom of fuselage at existing cargo hook provision. Use NAS1304-26H bolts and AN960-416 washers if the cargo hook will not be installed. Use NAS1304-29H bolts and AN960-416 washers if the cargo hook is being installed. Do not install washer between cargo hook and Cargo Hook Pad. Lockwire the heads of the bolts using MS20995C20E lockwire. Torque bolts to 50-70 inch-pounds.

Note: Ensure full engagement of NAS1304 bolt in cargo hook provisions. Bolt length may be increased if required. NAS6604 bolt may be used as alternate if required.
5. Locate 81531-01 forward strut from bottom of forward beam to forward eyebolt on cargo hook pad. Rotate AN45 eyebolts on beam and cargo hook pad as required until strut aligns with both eyebolts. Strut length may be adjusted as required by threading end fitting in/out. Lock fitting in place with checknut. Install AN5-7A bolts, AN960-516 washers, and MS21044N5 nuts at both ends of strut. Torque bolts to 100-140 inch-pounds.
6. Repeat step 5. for 81531-02 aft strut.

25-2 PROVISIONS REMOVAL

Refer to Figure 4.

1. Remove Cargo Basket. Refer to section 25-4.
2. Remove four AN5-7A Bolts, AN960-516 Washers and MS21044N5 Nuts from 82831-01 Forward Strut and 82831-02 Aft Strut. Remove Struts.
3. Remove two LW1325-1 Pins securing 82815-01 Beam Assemblies. Remove Beam Assemblies.
4. Remove four NAS1304 bolts and AN960-416 washers securing 82830-01 Cargo Hook Pad. Remove Cargo Hook Pad.



PROVISIONS INSTALLATION LEFT SIDE SHOWN, RIGHT SIDE IDENTICAL

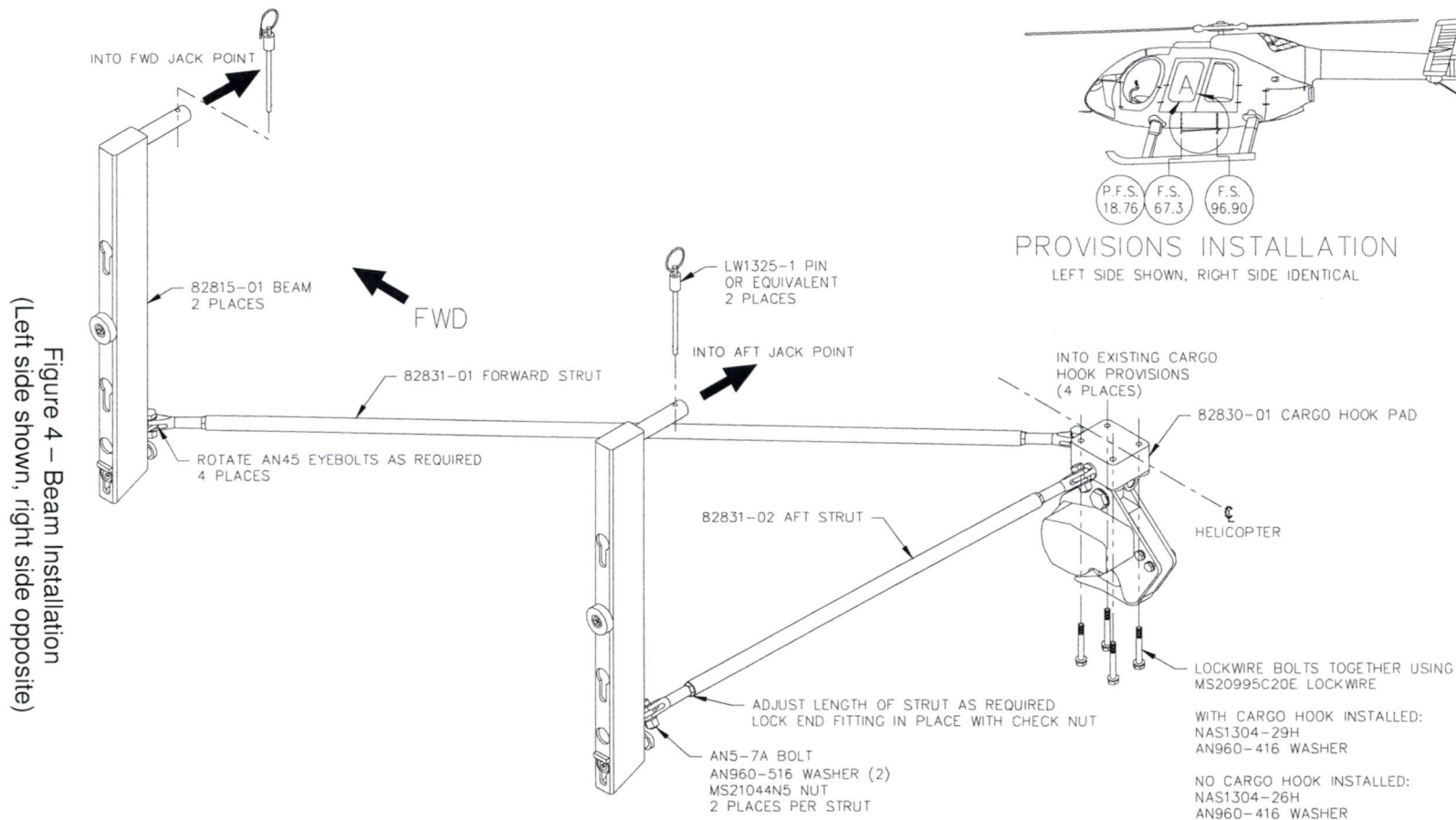


Figure 4 – Beam Installation
(Left side shown, right side opposite)

DETAIL A

NOT TO SCALE
LOOKING INBOARD AND FORWARD AT LEFT SIDE
RIGHT SIDE OPPOSITE

25-3 BASKET INSTALLATION

Refer to Figure 5.

1. Set basket upper attachment into upper keyway in forward and aft beams.
2. At forward end of basket, lift basket until lower attachment fitting hits stop. Push fitting into keyway and slide basket down until locked.
3. Repeat step 2 for aft end.

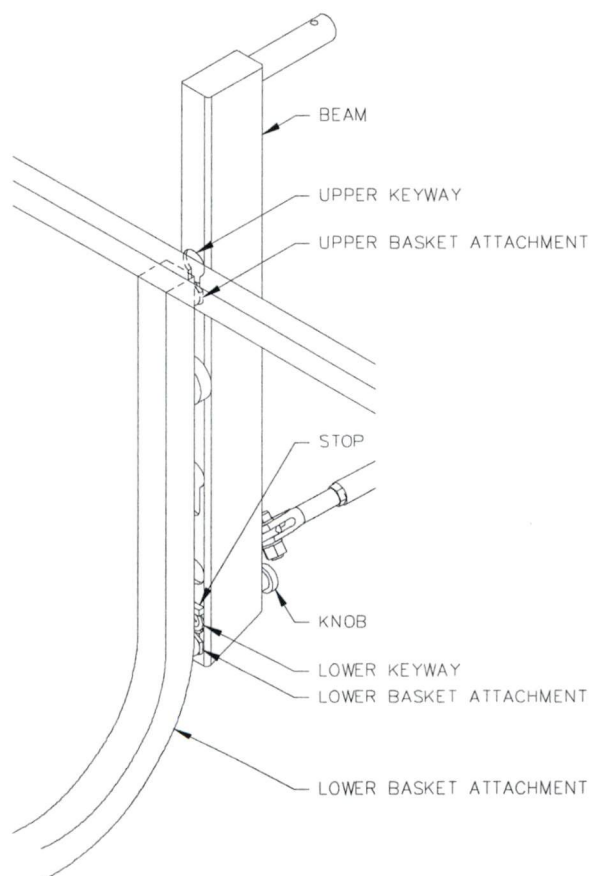


Figure 5 – Basket Attachment

25-4 BASKET REMOVAL

Refer to Figure 5.

1. Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in keyway on beam.
2. Pull knob at bottom end of aft beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in keyway on beam.
3. Lift basket until upper attachments are out of keyways on both beams and remove basket from helicopter.

25-5 WEIGHT AND BALANCE

Two weight and balance configurations are required for the pilot. The first is the installation of Provisions only. The second is Provisions and Cargo Basket as the basket may be removed/installed in the field by the pilot.

Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
82802-01	Provisions Installation	11.2	85.6	958.7	-20.5	-229.6
<i>Provisions and Cargo Basket</i>						
82810-01	Quick Release Cargo Basket	45.0	82.1	3694.5	-39.8	-1788.8
82801-01	Cargo Basket Installation	56.2	82.8	4653.2	-35.9	-2018.4

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	Moment mm-kg
82802-01	Provisions Installation	5.1	2 174	11 087	-521	-2 657
<i>Provisions and Cargo Basket</i>						
82810-01	Quick Release Cargo Basket	20.4	2 085	42 534	-1011	-20 624
82801-01	Cargo Basket Installation	25.5	2 103	53 621	-913	-23 281


Note: Lateral arms are given for left side installation. For installation on right side, lateral arms are positive.

25-6 STRUCTURAL FASTENER DATA


Refer to Maintenance Manual CSP-HMI-2, section 20 for torque values not listed in this ICA.

STEP

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
70401	Open Forward End Modification (Bell 206L/407 Fixed and McDonnell Douglas MD600N Quick Release Only)	1
70402	Lid Door Modification	1
70403	Auxiliary Latch Modification	3
70404	Open Forward End Modification (Bell 206L/407 Quick Release Only)	1
70405	Lid Step Modification	2
70406	Open Forward End Modification (Eurocopter AS350/AS355 and Bell 206B Quick Release Only)	0
70407	Open Forward End Modification (Eurocopter EC135 Quick Release Only)	0
70408	Installation, Hanger Wheel	0
70428	Assembly, Hanger Wheel	0
70438	Parts, Hanger Wheel	0
ENGINEERING DOCUMENTS		
ER704.02	Engineering Report	0
<div> <div> APPROVAL:  Transport Canada E. BURGOIN DAR 280M APPROVED By <i>[Signature]</i> Appl No. <u>SH09-5</u> Appl Date <u>20 Mar 2009</u> Issue No. <u>1</u> Issue Date <u>20 Mar 2009</u> THIS DCL APPROVED 29 Apr 2010 </div> <div> ORIGINAL DATE: 10 May 2006 REVISION DATE: April 29, 2010 </div> <div> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div> </div>		
SHEET 1 OF 1		Cargo Basket Modifications Rev.
DCL704		6



DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
82901	Quick Release Step Installation	0
82902	Fixed Step Installation	0
ICA829.90	Instructions for Continued Airworthiness	1
FMS828.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL829-11	Document Control List for Quick Release Step	0
ENGINEERING DOCUMENTS		
<div> <div> APPROVAL:  Transport Canada E. BURGOIN DAR 290CM APPROVED By <i>[Signature]</i> Appr'l No. <i>5809-01</i> Appr'l Date <i>27 Jan 2009</i> Issue No. <i>1</i> Issue Date <i>27 Jan 2009</i> </div> <div> ORIGINAL DATE: 3 December, 2008 REVISION DATE: 22 July, 2009 </div> <div> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 www.aerodesign.ca </div> </div>		
SHEET 1 OF 1		McDonnell Douglas MD600N Step Installations
DCL829-1		Rev. 1

DOCUMENT CONTROL LIST


DOCUMENT NO.	DOCUMENT CONTENT	REVISION						
FABRICATION DOCUMENTS								
82910	Step Assembly	0						
80021	Step Support	0						
82932	Down Tube Fabrication	0						
ENGINEERING DOCUMENTS								
ER829.01	Engineering Report	0						
ER829.02	Engineering Report	0						
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>APPROVAL</p> <p>Transport Canada</p> <p>E. BURGOIN DAR 250M</p> <p>APPROVED</p> <p>By <i>[Signature]</i></p> <p>Appr'l No. <u>540951</u></p> <p>Appr'l Date <u>27 Jan 2009</u></p> <p>Issue No. <u>1</u></p> <p>Issue Date <u>27 Jan 2009</u></p> </div> <div style="width: 65%;"> <table border="1" style="width: 100%;"> <tr> <td style="width: 30%;"> <p>ORIGINAL DATE:</p> <p>3 December, 2008</p> <p>REVISION DATE:</p> <p>22 July, 2009</p> </td> <td style="width: 70%;"> <p>AERO DESIGN LTD.</p> <p>2013 – 39th Ave NE, Calgary, Alberta, T2E 6R7</p> <p>Ph. (403) 250-8027</p> <p>Fax. (403) 250-8333</p> <p>www.aerodesign.ca</p> </td> </tr> <tr> <td> <p>SHEET 1 OF 1</p> </td> <td> <p>McDonnell Douglas MD600N</p> <p>Quick Release Step</p> <p>Fabrication</p> </td> </tr> <tr> <td colspan="2"> <p style="text-align: center; font-size: 2em;">DCL829-11</p> </td> </tr> </table> </div> </div>			<p>ORIGINAL DATE:</p> <p>3 December, 2008</p> <p>REVISION DATE:</p> <p>22 July, 2009</p>	<p>AERO DESIGN LTD.</p> <p>2013 – 39th Ave NE, Calgary, Alberta, T2E 6R7</p> <p>Ph. (403) 250-8027</p> <p>Fax. (403) 250-8333</p> <p>www.aerodesign.ca</p>	<p>SHEET 1 OF 1</p>	<p>McDonnell Douglas MD600N</p> <p>Quick Release Step</p> <p>Fabrication</p>	<p style="text-align: center; font-size: 2em;">DCL829-11</p>	
<p>ORIGINAL DATE:</p> <p>3 December, 2008</p> <p>REVISION DATE:</p> <p>22 July, 2009</p>	<p>AERO DESIGN LTD.</p> <p>2013 – 39th Ave NE, Calgary, Alberta, T2E 6R7</p> <p>Ph. (403) 250-8027</p> <p>Fax. (403) 250-8333</p> <p>www.aerodesign.ca</p>							
<p>SHEET 1 OF 1</p>	<p>McDonnell Douglas MD600N</p> <p>Quick Release Step</p> <p>Fabrication</p>							
<p style="text-align: center; font-size: 2em;">DCL829-11</p>								
		<p>Rev.</p> <p style="font-size: 2em; text-align: center;">1</p>						

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
82901	Quick Release Step Installation	0
ICA829.90	Instructions for Continued Airworthiness	0
FMS828.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL829-11	Document Control List for Quick Release Step	0
ENGINEERING DOCUMENTS		
APPROVAL:		
 <div style="display: flex; justify-content: space-between;"> <div>Transport Canada</div> <div>Transports Canada</div> </div> <div style="text-align: center;"> AIRCRAFT CERTIFICATION DIVISION APPROVED </div> <div> By:  Appr'l No. <u>SH09-1</u> Appr'l Date <u>09-01-27</u> Issue No. <u>1</u> Issue Date <u>09-01-27</u> <small>YY - MM - DD</small> </div>	ORIGINAL DATE: 3 December, 2008 REVISION DATE:	AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 www.aerodesign.ca
	SHEET 1 OF 1	McDonnell Douglas MD600N Quick Release Step Installation
	DCL829-1	0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS 82910 80021	Step Assembly Step Support	0 0
ENGINEERING DOCUMENTS ER829.01	Engineering Report	0

APPROVAL: <div style="border: 1px solid black; padding: 5px; width: fit-content;">  <div style="display: flex; justify-content: space-between;"> Transport Canada Transports Canada </div> <p>AIRCRAFT CERTIFICATION DIVISION</p> <p style="text-align: center;">APPROVED</p> <p>By <u>[Signature]</u></p> <p>Appr'l No. <u>SH09-1</u></p> <p>Appr'l Date <u>09-01-27</u></p> <p>Issue No. <u>1</u></p> <p>Issue Date <u>09-01-27</u></p> <p style="text-align: center; font-size: small;">YY - MM - DD</p> </div>		ORIGINAL DATE: 3 December, 2008 REVISION DATE:	AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 www.aerodesign.ca
SHEET 1 OF 1		McDonnell Douglas MD600N Quick Release Step Fabrication	
<h2>DCL829-11</h2>		Rev. <h2>0</h2>	

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 829.90

QUICK RELEASE STEP

Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Quick Release Step assembled in accordance with AERO Design Ltd. Document Control List DCL829-11, Revision 0, or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 0
Date: 27 November, 2008

AERO Design Ltd.
Engineering Consultants

2013 – 39th Avenue N.E., Calgary, Alberta T2E 6R7
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RECORD OF REVISIONS

Revision Number	Issue Date	Date Inserted	By
0	27 November 2008		Original Issue

LIST OF EFFECTIVE PAGES

List of Revisions

Revision 0 (Original Issue) 27 November, 2008

List of Effective Pages

<u>Description</u>	<u>Pages</u>	<u>Revision No.</u>
Cover	1	0
Revision Record/List of Effective Pages	2	0
Table of Contents	3	0
00-00-00	4-5	0
04-00-00	6	0
05-00-00	7-9	0
25-50-00	10-11	0

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CHAPTER 0 – INTRODUCTION**0-1 SCOPE**

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for rotorcraft embodying the Quick Release Step as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Quick Release Step. Requests for a copy may be made in writing to:

AERO Design Ltd.
2013 39th Avenue N.E.
Calgary, Alberta
T2E 6R7
Fax: 403-250-8333
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

0-5 GENERAL DESCRIPTION

The Quick Release Step installation consists of a step assembly which is attached to quick release mounting provisions installed on the helicopter. These mounting provisions are capable of mounting various equipment including cargo baskets.

The step itself consists of an aluminum extrusion attached to brackets near the ends with fittings that lock into the quick release mechanism.

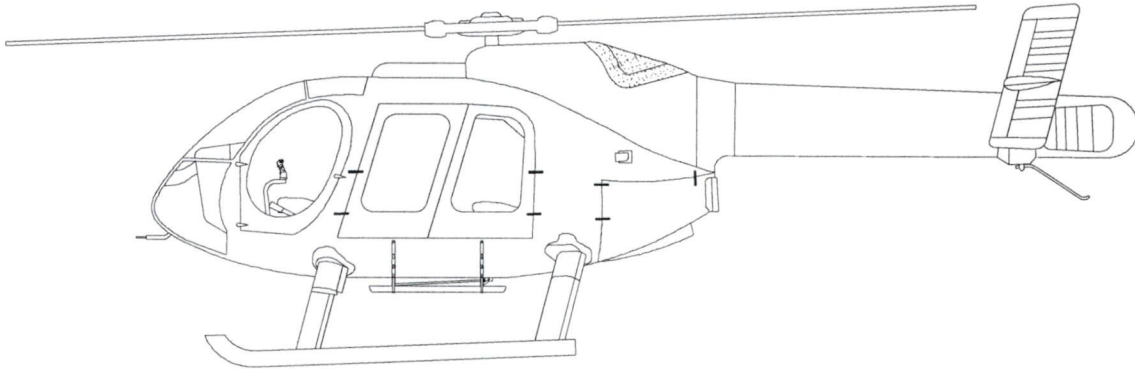


Figure 2 –Step Installation

CHAPTER 4 - AIRWORTHINESS LIMITATIONS

Transport Canada

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

FAA

The Airworthiness Limitations section is FAA approved and specifies maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

No additional airworthiness limitations have been imposed due to installation of the Quick Release Step.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Quick Release Step.

Daily Inspection

1. Inspection Area: Step

- a) Inspect the step attachment to the beams for condition and security. Ensure quick release mechanism is completely extended, flush with the outboard surface of the beam.

300 Hour or Annual Inspection

Refer to the ICA for the Quick Release Cargo Basket for inspection of mounting provisions.

1. Inspection Area: Step

- a) Visually inspect welds attaching end brackets to step extrusion for cracks, corrosion or other damage.
- b) Visually inspect step for damage.
- c) Visually inspect lugs attaching the step to the beams for security and damage.

Special Inspections

Following a hard landing inspect the Quick Release Step installation in accordance with the 300 hour or annual inspection listed above.

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

Refer to the ICA for the Quick Release Cargo Basket for further limits and repair instructions.

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Step Assembly

Part	Type of Damage	Max. Allowable	Repair
Step Support Bracket	Corrosion	0.010" deep	Blend up to 0.010" deep with scotchbrite.
	Scratches / Nicks	0.010" deep x 0.5" long	Blend up to 0.010" deep with scotchbrite.
	Cracks/Dents	None	N/A
	Bent Lugs	None	N/A
Step Section	Corrosion	2" x 2" x 0.010" deep	Blend up to 0.010" deep with scotchbrite.
	Scratches / Nicks	0.010" deep x 1" long	Blend up to 0.010" deep with scotchbrite.
	Cracks / Dents	None	N/A
	Permanent Deflection of Step	0.25" max at middle of step	None

2. Steel Beams

Part	Type of Damage	Max. Allowable	Repair
Steel Beam	Corrosion	0.030" deep	Blend up to 0.030" deep with scotchbrite.
	Scratches / Nicks (Outboard face)	0.030" deep x 0.125" wide	Blend up to 0.030" deep with scotchbrite.
	Scratches / Nicks (all other sides)	0.060" deep x 0.125" wide	Blend up to 0.060" deep with scotchbrite.
	Cracks/Dents	None	N/A
	Elongation of Keyway	See figure 3	None
	Widening of slots	27/64" (0.422) diameter (check with a 27/64" drill)	None



Figure 3 – Keyway dimensions

5-3 PROTECTIVE TREATMENT INFORMATION

1. Step Assembly

The Step Assembly is supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint. The tread area is painted with anti-skid paint. If the anti-skid paint is damaged, touch up with Randolph X1567 Wingwalk grip paint or equivalent.

CHAPTER 25 – EQUIPMENT AND FURNISHINGS

The Quick Release Step Installation may be applied to the right and/or left side of the helicopter. Refer to the ICA for the Quick Release Cargo Basket for installation and removal instructions for the mounting provisions.

25-1 STEP INSTALLATION

Refer to Figure 4.

1. Set upper attachment into upper keyway in forward and aft beams.
2. Lift step until lower attachment fitting hits stop. Push fitting into keyway and slide step down until locked.

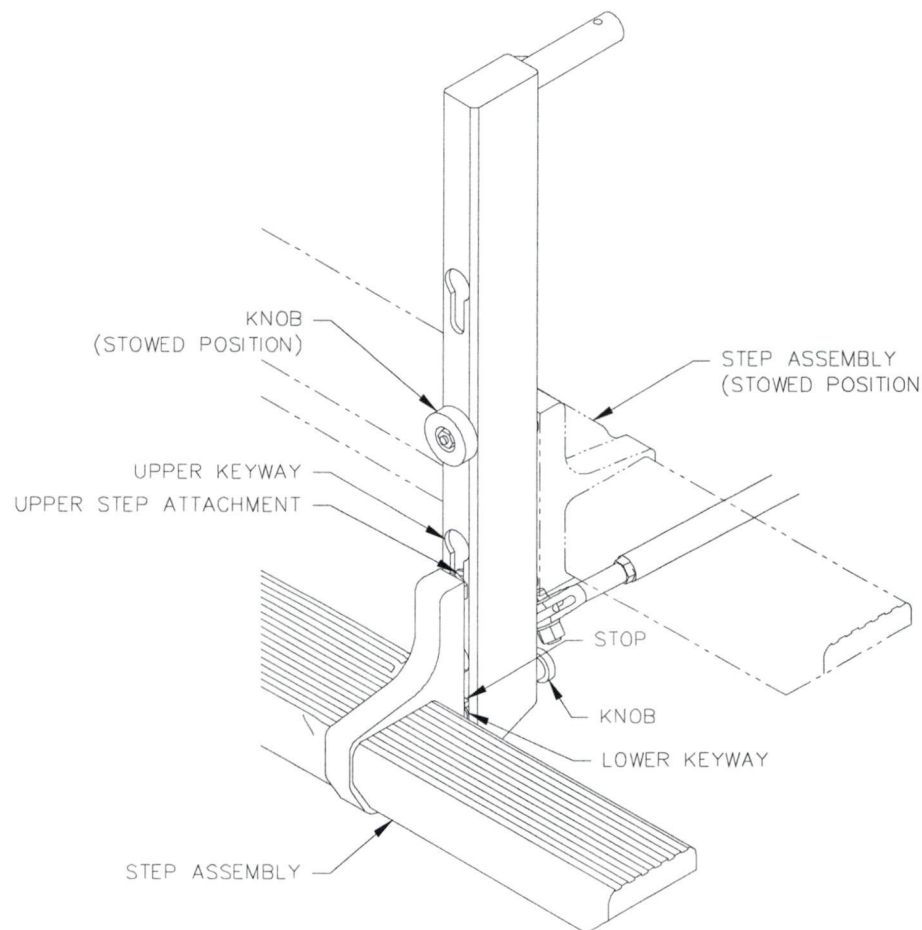


Figure 4 – Step Attachment

25-2 STEP REMOVAL

Refer to Figure 4.

1. Pull knob at bottom end of forward beam and lift step until lower attachment fitting is free of keyway. Keep upper attachment in keyway on beam.

2. Pull knob at bottom end of aft beam and lift step until lower attachment fitting is free of keyway. Keep upper attachment in keyway on beam.
3. Lift step until upper attachments are out of keyways on both beams and remove from helicopter.

25-3 WEIGHT AND BALANCE

Three weight and balance configurations are required for the pilot: Provisions only; Provisions and Step (outboard position); Provisions and Step (stowed position). These configurations are required as the step may be removed/installed in the field by the pilot.

Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm	moment	arm	moment
	<i>Provisions Only</i>		in	in-lb	in	in-lb
82802-01	Provisions Installation	11.2	85.6	958.7	-20.5	-229.6
	<i>Provisions and Step</i>					
82910-01	Quick Release Step	5.0	82.1	410.5	-29.5	-147.5
82901-01	Step Installation	16.2	84.5	1369.2	-23.3	-377.1
	<i>Provisions and Step (Stowed)</i>					
82910-01	Quick Release Step	5.0	82.1	410.5	-23.7	-118.5
82901-01	Step Installation	16.2	84.5	1369.2	-21.5	-348.1

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm	moment	arm	Moment
	<i>Provisions Only</i>		mm	mm-kg	mm	mm-kg
82802-01	Provisions Installation	5.1	2174	11087	-521	-2657
	<i>Provisions and Step</i>					
82710-01	Quick Release Step	2.3	2085	4796	-749	-1723
82701-01	Step Installation	7.4	2146	15883	-592	-4380
	<i>Provisions and Step (Stowed)</i>					
82710-01	Quick Release Step	2.3	2085	4796	-602	-1385
82702-01	Step Installation	7.4	2146	15883	-546	-4042

Note: Lateral arms are given for left side installation. For installation on right side, lateral arms are positive.

25-4 STRUCTURAL FASTENER DATA

Refer to Maintenance Manual CSP-HMI-2, Section 20, for torque values not listed in this ICA.

NOTES:

1. HIGH SKID GEAR INSTALLATION IS MANDATORY PREREQUISITE FOR THIS INSTALLATION.

WEIGHT AND BALANCE

ITEM	DESCRIPTION	WEIGHT (LB)	LONGITUDINAL		LATERAL	
			ARM (IN)	MOMENT (LB-IN)	ARM (IN)	MOMENT (LB-IN)
02	FORWARD FITTING (PAIR)	3.42	73.2	250.3	0	0
03/04	AFT FITTING (PAIR)	0.64	127.6	81.6	0	0
01	MOUNTING PROVISIONS INSTALLATION	4.06	81.7	331.9	0	0

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	<p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:</p> <p>DECIMALS ANGLES</p> <p>X.XXX ±0.010 ±1/2°</p> <p>X.XX ±0.03</p> <p>X.X ±0.1</p>		<p>BELL 206B</p> <p>QUICK RELEASE MOUNTING PROVISIONS</p> <p>EXTERNAL ATTACHMENT PROVISIONS INSTALLATION</p>			
	<p>NOT TO SCALE</p>		DWG. SIZE	DWG. NO.	REV.	
	<p>SHEET 2 OF 2</p>		A4	49701	0	

NOTES:

1. EXTERNAL ATTACHMENT PROVISIONS INSTALLED IN ACCORDANCE WITH DRAWING 49701 OR 49703 IS MANDATORY PREREQUISITE FOR THIS INSTALLATION.
2. HIGH SKID GEAR INSTALLATION IS MANDATORY PREREQUISITE FOR THIS INSTALLATION.

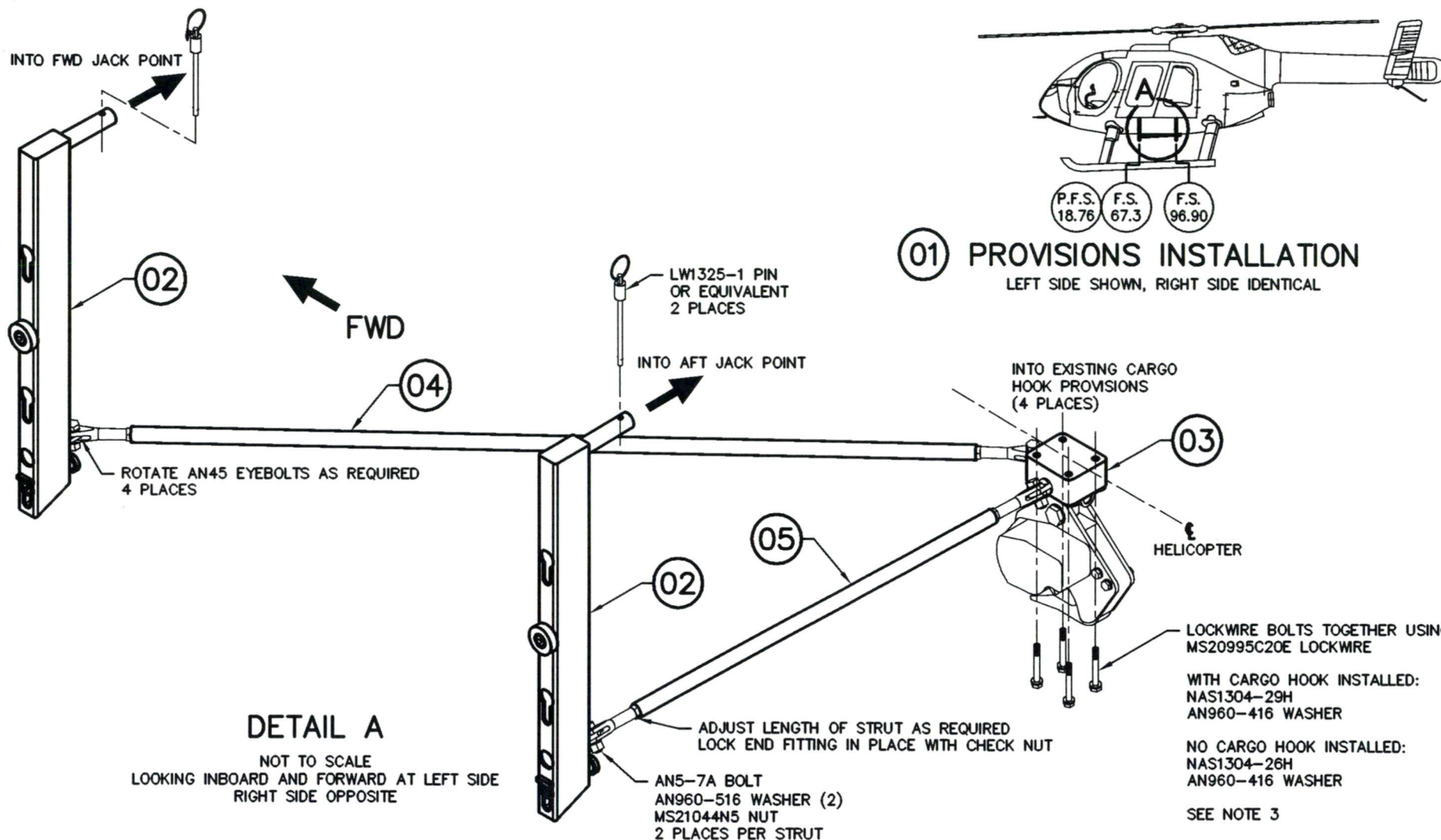
WEIGHT AND BALANCE

ITEM	DESCRIPTION	WEIGHT (LB)	LONGITUDINAL		LATERAL	
			ARM (IN)	MOMENT (LB-IN)	ARM (IN)	MOMENT (LB-IN)
02	FORWARD BEAM	11.5	76.4	878.6	12.7	146.2
03	AFT BEAM	10.5	129.1	1355.6	13.6	142.8
04	EXTERNAL ATTACH. PROV. (49701-01)	4.1	81.7	331.9	0	0
01	MOUNTING PROVISIONS INSTALLATION	26.1	98.3	2566.1	11.1	289.0
02	FORWARD BEAM	11.5	76.4	878.6	12.7	146.2
03	AFT BEAM	10.5	129.1	1355.6	13.6	142.8
04	EXTERNAL ATTACH. PROV. (49703-01)	5.3	79.7	423.8	0	0
01	MOUNTING PROVISIONS INSTALLATION	27.3	97.4	2658.0	10.6	289.0

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APPROVALS	DATE
DRAWN: JEFF CLARKE	06 OCT 2008
CHECKED: E. BURGAIN	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2" X.XX ±0.03 X.X ±0.1	

AERO DESIGN LTD.				
CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M 2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7 tel: (403) 250-8027 fax: (403) 250-8333 www.aerodesign.ca				
BELL 206B QUICK RELEASE MOUNTING PROVISIONS BEAMS INSTALLATION				
NOT TO SCALE	DWG. SIZE	DWG. NO.	REV.	
SHEET 2 OF 2	A4	49702	0	



APPROVALS		DATE		<div>AERO DESIGN LTD.</div> <div>CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M 2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7 tel: (403) 250-8027 fax: (403) 250-8333 www.aerodesign.ca</div>					
DRAWN: JEFF CLARKE		17 NOV 2008							
CHECKED: E. BURGOIN									
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:</div> <div>DECIMALS ANGLES</div> <div>X.XXX ±0.010 ±1/2"</div> <div>X.XX ±0.03</div> <div>X.X ±0.1</div>				<div>MCDONNELL DOUGLAS MD600N QUICK RELEASE PROVISIONS INSTALLATION</div>					
				NOT TO SCALE		DWG. SIZE	DWG. NO.	REV.	
				SHEET 1 OF 2		A4	82802	0	

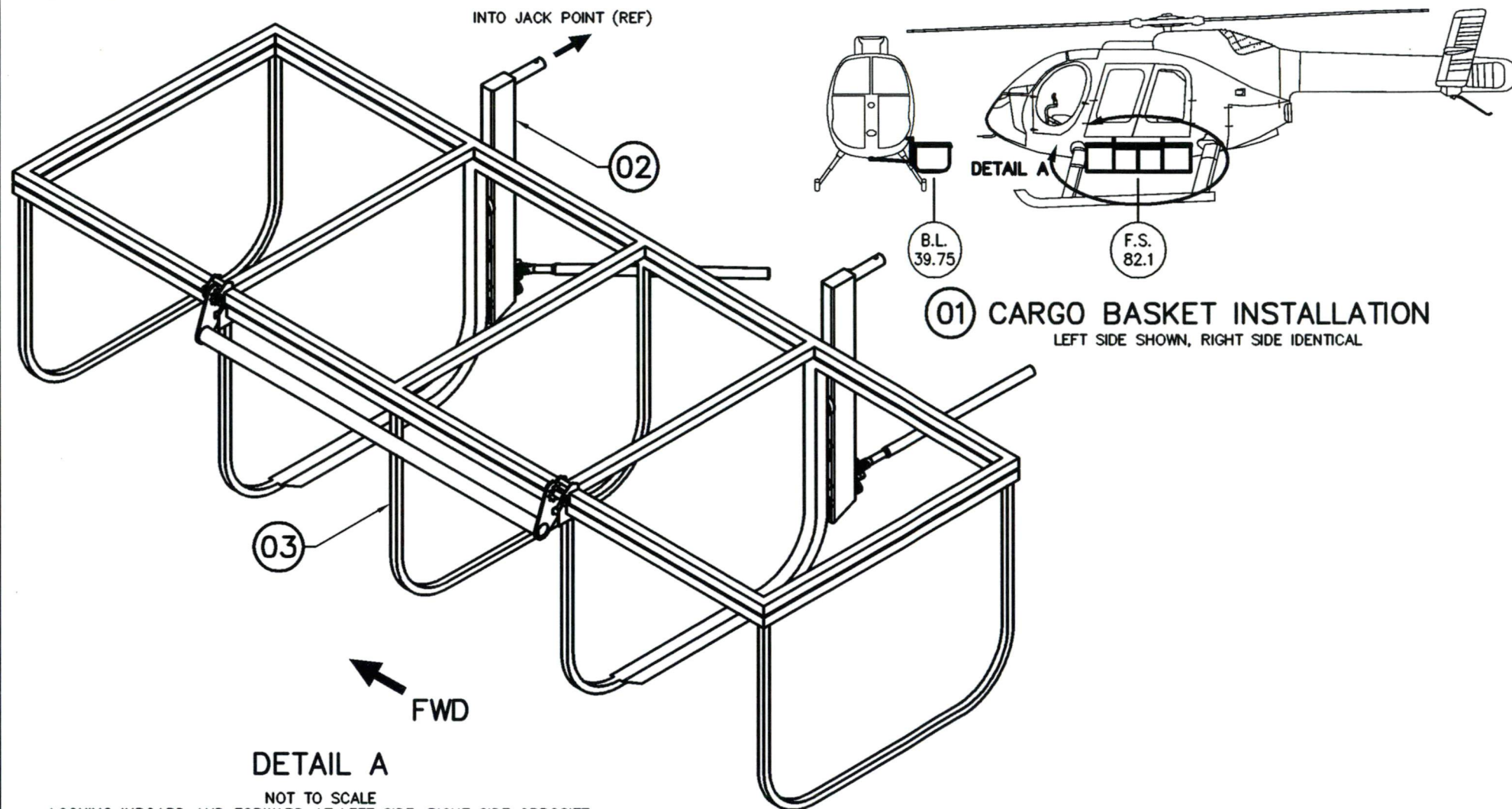
REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	*	*	*

NOTES

1. INSTALLATION MAY BE APPLIED TO THE LEFT OR RIGHT SIDE. LATERAL ARM IS POSITIVE ON RIGHT SIDE INSTALLATION.
2. THIS INSTALLATION IS COMPATIBLE WITH THE 3000 LB. CARGO HOOK INSTALLATION (P/N 369H90072-525)
3. ENSURE FULL ENGAGEMENT OF NAS1304 BOLTS. BOLT LENGTH MAY BE INCREASED IF REQUIRED.
NAS6604 BOLTS MAY BE USED AS ALTERNATE IF REQUIRED.
4. INSTALL ALL HARDWARE USING STANDARD SHOP PRACTICES AS OUTLINED IN AC43.13-1B,
CHAPTER 7 "AIRCRAFT HARDWARE, CONTROL CABLES, AND TURNBUCKLES"
OR STANDARD AIRCRAFT WORKERS MANUAL, SECTION 7 "SHOP PRACTICES".
5. TORQUE 5/16" BOLTS TO 60-85 INCH-POUNDS.
TORQUE 1/4" BOLTS TO 30-40 INCH-POUNDS.

WEIGHT AND BALANCE						
ITEM	DESCRIPTION	WEIGHT (LB)	LONGITUDINAL		LATERAL	
			ARM (IN)	MOMENT (LB-IN)	ARM (IN)	MOMENT (LB-IN)
01	QUICK RELEASE PROVISIONS	11.2	85.6	958.7	-20.5	-229.6
2	LW1325-1		PIN			
A/R	MS20995C20E		LOCKWRE			
A/R	AN960-416		WASHER			
4	NAS1304-26H		BOLT (ALTERNATE - NO HOOK)			
4	NAS1304-29H		BOLT			
1	MS21044N5		NUT			
1	AN960-516		WASHER			
4	AN5-7A		BOLT			
1	82831-02	05	AFT STRUT			
1	82831-01	04	FORWARD STRUT			
1	82830-01	03	CARGO HOOK PAD			
2	82815-01	02	BEAM ASSEMBLY			
	82802-01	01	QUICK RELEASE PROVISIONS INSTALLATION			
01	PART NO.	ITEM	DESCRIPTION			
QTY	LIST OF MATERIALS					

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	DRAWN: JEFF CLARKE		17 NOV 2008					
	CHECKED: E. BURGOIN				<h3 style="text-align: center;">MCDONNELL DOUGLAS MD600N QUICK RELEASE PROVISIONS INSTALLATION</h3>			
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:							
	DECIMALS		ANGLES					
X.XXX ±0.010		±1/2"		NOT TO SCALE		DWG. SIZE	DWG. NO.	REV.
X.XX ±0.03				SHEET 2 OF 2		A4	82802	0
X.X ±0.1								



DETAIL A

NOT TO SCALE
LOOKING INBOARD AND FORWARD AT LEFT SIDE, RIGHT SIDE OPPOSITE
MESH NOT SHOWN FOR CLARITY

APPROVALS		DATE		<div>AERO DESIGN LTD.</div> <div>CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M 2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7 tel: (403) 250-8027 fax: (403) 250-8333 www.aerodesign.ca</div>				
DRAWN: JEFF CLARKE		17 NOV 2008						
CHECKED: E. BURGOIN								
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:</div> <div>DECIMALS ANGLES</div> <div>X.XXX ±0.010 ±1/2"</div> <div>X.XX ±0.03</div> <div>X.X ±0.1</div>				<div>MCDONNELL DOUGLAS MD600N QUICK RELEASE CARGO BASKET INSTALLATION</div>				
				NOT TO SCALE		DWG. SIZE	DWG. NO.	REV.
				SHEET 1 OF 2		A4	82801	0

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	*	*	*

NOTES

1. INSTALLATION OF THE QUICK RELEASE MOUNTING PROVISIONS IN ACCORDANCE WITH DRAWING 82802 IS REQUIRED PRIOR TO THIS INSTALLATION.
2. INSTALLATION MAY BE APPLIED TO THE LEFT OR RIGHT SIDE, NOT BOTH. LATERAL ARM IS POSITIVE WHEN INSTALLED ON THE RIGHT.
3. REFER TO INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA828.90 FOR MAINTENANCE INFORMATION.
4. REFER TO FLIGHT MANUAL SUPPLEMENT FMS828.91 FOR OPERATING LIMITATIONS.

WEIGHT AND BALANCE

				LONGITUDINAL		LATERAL		
ITEM	DESCRIPTION			WEIGHT (LB)	ARM (IN)	MOMENT (LB-IN)	ARM (IN)	MOMENT (LB-IN)
02	QUICK RELEASE PROVISIONS			11.2	85.6	958.7	-20.5	-229.6
03	CARGO BASKET ASSEMBLY			45.0	82.1	3694.5	-39.8	-1788.8
01	CARGO BASKET INSTALLATION			56.2	82.8	4653.2	-35.9	-2018.4
1	82810-01	03	CARGO BASKET ASSEMBLY					
1	82802-01	02	QUICK RELEASE PROVISIONS INSTALLATION					
	82801-01	01	QUICK RELEASE CARGO BASKET INSTALLATION					
01	PART NO.	ITEM	DESCRIPTION					
QTY	LIST OF MATERIALS							

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	DRAWN: JEFF CLARKE		17 NOV 2008						
	CHECKED: E. BURGOIN				<h3 style="text-align: center;">MCDONNELL DOUGLAS MD600N QUICK RELEASE CARGO BASKET INSTALLATION</h3>				
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:								
	DECIMALS X.XXX ±0.010 X.XX ±0.03 X.X ±0.1		ANGLES ±1/2°						
		NOT TO SCALE		DWG. SIZE A4		DWG. NO. 82801		REV. 0	
		SHEET 2 OF 2							